

Nigeria ICT Forum of Partnership Institutions

Preliminary Report on the 1st Annual Nigerian Network Operators Group (NgNOG) and 5th Conference on ICTs and Education held at the Hill Station Hotel, Jos, on 20-25 November, 2006

Summary

We [the Nigeria ICT Forum, the Co-Convenor of the Nigerian Network Operators Group (NgNOG) and the Organizing Committee for the event] are happy to announce the successful conclusion of the first edition of the annual Nigerian Network Operators Group (NgNOG) Workshop on Internet Technology and Conference on Fostering a National Research and Education Network (NREN), hosted by the University of Jos 20061120-25.

This event built upon the Pre-NgNOG Workshop that was successfully deployed at the University of Ibadan in July, 2006.

Fifty-six (56) participants were trained in the three tracks of the NgNOG 2006 workshop, and the vast majority of them are academic network operators, with half of all delegates being staff of the six Forum member institutions. Tutorial presentations were made on VoIP, Power Planning, Management of Spam and Viruses among others topics. Seven Special Interest Groups (SIGs) evolved out of the workshop, and began interactions on their respective areas of interest in time to make inputs into the Conference.

Ninety (90) persons participated in the Conference, and considered reports of the SIGs and the six lead papers that were presented mostly by private sector firms.

We [the Board of the Nigeria ICT Forum of Partnership Institutions, NgNOG Convenors and Organizers as well as all the instructors, presenters, delegates and our supporters] are proud to record Africa's first -and highly successful- attempt to customize and domesticate the annual AfNOG training program while retaining all its flavours, as a means of accelerating sustainable ICT capacity-building and building a viable networking community.

With very great appreciation to the Partnership for Higher Education in Africa and particularly to our donors (the Carnegie Corporation of New York and the MacArthur Foundation); to the Network Start up Resource Centre and the University of Oregon in the USA, who donated and shipped eight jumbo boxes containing all the books we needed and networking for delegates and their institutional libraries, and the equipment required for such a challenging undertaking; to the Internet Society (ISOC) and the African Network Operators Group (AfNOG) and their many ghosts from all over the world, who developed the curriculum, trained our trainers and inspired us over the years; to our all-Nigerian delegates, volunteer team of instructors and presenters who came from all over the country

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(and as far a field as Lagos, Aba, and Port Harcourt; Abuja, Sokoto and Yola); to our joint AfNOG Abuja LOC, NgNOG LOC and UniJos LOC and student interns who formed a truly formidable Organizing Committee; to our local host, Forum institutions, other institutions and agencies, as well as to the Nigerian private sector and firms. It is impossible to mention everyone in this summary, but a full list of supporters and contributors will be published in due course.

A proud thank you to the University of Jos, and to the people of Jos and Plateau State: they not only contributed to, and hosted NgNOG 2006, but also maintained peace and calm during the entire two weeks of on-site preparation and activity, despite great media-generated political uncertainty about the impeachment and purported arrest of the State's Executive Governor. Not a single untoward incidence happened during our stay in Jos.

The NgNOG Workshop and Tutorials

On-site preparation and setup for the workshop commenced in Jos, capital of Plateau State a week earlier (from Tuesday 20061114), led by Mr. Abdulkakeem Ajijola (“AhA”, who was at AfNOG Nairobi to observe setup). Registration of delegates to NgNOG I commenced on Sunday 20061119, led by the Forum’s Mallam Nasir Bello and Ms. Sekyen Niyang. It is significantly reassuring that setup for NgNOG and the entire event took place without any untoward incidents during the impeachment and purported arrest of the Plateau State’s Executive Governor.

Preparation for the workshop was made for 90 delegates (30 per track); 74 applied and were admitted to the workshop, with 58 reporting (2 of them rather too late) for registration in the following track assignments:

E0 (UNIX System Administration)	24
E1 (Scalable Network Services)	18
E2 (Scalable Network Infrastructure)	14

NgNOG 2006 was open to Nigerian Network Operators from all sectors. That 52 (93%) of the 56 registered participants were from Higher Education Institutions and mostly (42 or 75%) from the six institutional members of the Forum, demonstrates a downing awareness of the importance of capacity building where it counts, and the careful use of incentive mechanisms. Women were (expectedly, at this stage) under-represented (constituting only 27% of the 56 delegates) but determined: one of them was unemployed but managed to transport herself from Abuja to Jos- and was rewarded with a full scholarship by the Forum. The University of Jos was a lesson on how to extract the maximum benefits of hosting, alone accounting for half of registered delegates to the workshop.

Thanks to the University of Oregon’s NSRC and those who support it, we had enough learning materials for not just every delegate to take away and continue learning, but also a library reference set for each instructor and every institution and agency represented at the workshop. Participants from Forum institutional members (and NGOs with interests similar to the Forum) were charged a fee of N30,000 while others paid N50,000 per delegate. The Forum used grant funds from the MacArthur Foundation and the Carnegie Corporation for this activity to supplement fees collected, and we were able to accommodate and feed everyone for the duration of the event, make enough copies of Free BSD, workshop and

tutorial notes, software etc, and to fuel buses provided by UniJos, transport instructors, presenters and organizers, etc.

Our Mr. Sunday A. Folayan of General Data Engineering Services/ SKANNET, Ibadan (an experienced AfNOG Instructor and Co-Convenor of NgNOG) among several other things, organized our other Nigerian volunteer instructors (all were delegates at previous AfNOG Workshops) and presenters from the private sector and universities, to put something back by delivering the workshop and tutorials as per the time-table and schedule published, thus:

Track E0: Ms. Binta Audu (UniJos Consultancy), Ms. Tarimin Kewa (G-Web Ltd), and Mr. Kanmi Adewara (OAU Ife);

Track E1: Mr. Christopher Anthony (UniJos), Mr. Jonathan Daniel (UniJos) and Mr. Dewole Ajao (SimbaNet, Lagos), and Mr. Adewale Adedokun (ABU Zaria); and

Track E2: Mr. Sunday Folayan (GDES Ltd), Ms. Geraldine Daloeng (UniJos) and Mr. BamiDele Amire (GDES Ltd).

Friday 20061124 was devoted to tutorials. The Reverend Ogwo Ukaegbu of SolartimeEnergy Ltd, Aba (called “Wind & Solar Reverend” behind his back!) presented on alternative energy; Kayode Ayodele of OAU Ife presented a refined Smart Power Logger to a wider audience; Silas Vem of UniJos lead a presentation on MIS; Cletus Okolie and Jennifer Ichull of UniJos and Omo Oaiya of Datasphir Solutions Ltd. Lagos presented on VoIP; George Gabla of Accelon Ltd Lagos discussed management of spam and viruses. Sunday Folayan and Dewole Ajao presented progress on management of the .ng TLD and Jummai Umar of APC enthralled on Entrepreneurial skills.

Under the coordination of Owen Iyoha of Datasphir Solutions Ltd., delegates organized themselves in to the following Special Interest Groups (SIGs) and began deliberations during the break periods and commenced nightly social events from Wednesday 20061122:

1. Library Information Services
2. Data Communication & Infrastructure
3. VoIP
4. Electric Power
5. Management/Policy and Capacity Building
6. Software development

In order not to be excluded further, women delegates participated in all the groups, but also formed a special (7th) SIG on Gender Equity/Women in ICT.

Each of the seven SIGs selected a leader, who presented the group’s output (a summary of the issues, identified constraints, recommended solutions and next steps) to a wider audience (all workshop delegates, instructors, presenters, as well as conference-only-delegates) during the Main NgNOG Conference held on Saturday 20061125. Submissions of full written reports from the SIGs have started arriving after the workshop, and deliberations/ exchange will continue on-line and by mail.

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Internet access at the Hill Station Hotel in Jos was available to delegates, thanks to Uche Nwafor/ UTEK Ltd., based in Lagos, who deployed a VSAT, wireless APs in the hotel and donated bandwidth for the duration of the entire event. By maintaining free access even during the day (when we were all away to the Workshop venue), other organizations and agencies holding their events at the hotel benefited and expressed delight at the unexpected and free access. It was an unexpected additional outcome, but we are delighted to note that the Hilton Hotel Management in Jos is negotiating with UTEK to retain the Internet Access Infrastructure provided for NgNOG 2006.

The NgNOG Conference

The theme of the Conference was “Fostering a National Research and Education Network (NREN) in Nigeria”, and it was attended by ninety (90) participants drawn from Universities, Colleges of Education, Government Agencies, the Private Sector, Non-Governmental Organizations and private individuals. Formal messages of goodwill were delivered by the National Information Technology Development Agency (NITDA), the Energy Commission of Nigeria (ECN) and on behalf of Vice-Chancellors of Forum Institutions. Apologies were received from many who could not personally attend, including the Honourable Minister for Science and Technology.

Six lead papers were presented, thus:

1. The Forum (Fostering an NREN: The Role of the Nigeria ICT Forum in National Research and Education Networking)
2. UniJos Library (Virtual Libraries as a critical factor in NREN formation)
3. Galaxy Backbone PLC (Connecting Nigeria)
4. Layer3 (Matters Arising from the Nigerian HEI Backbone Connectivity Study)
5. Consultancy Support Services (Feasibility Study for the Development of Virtual Library by Higher Education Institutions in Nigeria)
6. InfoGraphics/ Microsoft (Imperatives of Technology in, and for Education)

Participants discussed the major challenges and solutions presented by the SIGs, and all delegates were subsequently syndicated to deliberate and make recommendations on the following four major sub-themes of fostering an NREN in Nigeria:

1. Content
2. Management and Capacity Building
3. Infrastructure
4. Funding and Sustainability

Conference Resolutions

The Conference considered all inputs (from the lead papers, reports from the SIGs and Syndicates) in relation to the Forum’s efforts to foster a viable National Research and Education Network (NREN) in Nigeria, and:

- 1) Recommended the creation of sub-forums and listservs for Special Interest Groups to continue their deliberations, exchange and collaboration on-line;
- 2) Resolved to continue on-line discussions of Conference findings and recommendations on existing Forum platforms and listservs, as well as the new sub-Forums and listservs recommended to be created by the Nigeria ICT Forum; and

Delegates further observed and resolved that:

On Management and Capacity Building:

- 3) The NREN should remain a non-governmental organization
- 4) The goals and objectives of the NREN should include the following:
 - a) To support in terms of ICT matters what will produce graduates who are employable and well versed in ICT

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- b) To support ICT initiatives that will advance teaching and research
- 5) The NREN should be encouraged to grow and conform with international standards
- 6) NREN stakeholders should be tertiary educational and research institutions
- 7) NREN should organize regular train-the-trainer workshops centrally
- 8) There should be approved standards for equipment and data format.

On Funding and Sustainability:

- 9) An NREN foundation should be formed and launched to raise seed funds
- 10) Grants/donations, setting-up of endowments etc should be embarked upon to generate more goodwill and resources for the NREN
- 11) Business initiatives such as investments, advertisements, patenting and rendering of IT services, consulting, video on demand services should be engaged in to obtain more funds
- 12) Routine capacity building programmes, enlightenment and awareness campaigns should be embarked upon to generate revenue
- 13) Dues from new members of the NREN (as the organization grows) will also be a source of revenue
- 14) Funds for the management and the sustenance of the NREN should be internally generated through the organization of trainings and workshops, and grants/ donations from governmental bodies, external and internal donors
- 15) The NREN should assess and review its policies and objectives periodically to ensure that it remains relevant to the needs of the people it intends to serve

On Infrastructure:

- 16) Telecom companies should be approached to provide connectivity to the Higher Institutions using the economy of scale to reduce tariffs. We should endeavour to create documentation that guides procurement process
- 17) Create a databank for renewable energy sources and harnessing (points) locations. Create documentation for renewable energy sources.
- 18) Explore the beneficial engagement of open source software resources over the infrastructure
- 19) Pursue capacity building policies that focus on autonomy
- 20) Create discussion groups to explore the options available for building, and maintaining the network infrastructure

On Content:

- 21) Contents are expected to engender a pool of common interest that is local in nature and easily accessible. Contents need to be relevant and stored appropriately with back-ups. Contents should also be monitored and evaluated, and their impact should be regularly assessed. There is need for quality control, that would set standard on copy right to avoid plagiarism.
- 22) The NREN should:
 - a) Create databases for easy access
 - b) Create local content to preserve, conserve and export our culture and languages
 - c) Involve all stakeholders to foster collaboration in content creation
- 23) HEIs should look inward for local contents

- 24) Government should provide strong and favorable policy framework to stimulate production that will give rise to SMEs
- 25) Efforts should be made to identify and manufacture local contents that are exportable
- 26) There should be a database that will have
 - a) List of available expertise in the different fields of endeavour
 - b) Outputs of research from HEIs & Research Institutions
 - c) Product catalogues (list, pricing, manufacturers and specifications) could be an income stream
 - d) Activities of interest, culture of host communities
- 27) The language of content should be diverse and must of necessity reflect the host community
- 28) There should be a human content that is dynamic and whose capacity will be progressively built to address emerging demands
- 29) There should be collaboration between industries, Governments and HEIs with a view to getting industries inform HEIs of their needs in order for HEIs to produce graduates that can fit industry needs. This will be on the platform of curriculum review, internship etc
- 30) HEI to HEI collaboration should be encouraged to engender mentoring (train the trainers) and incubation
- 31) NREN should ensure that available content is affordable to the community since they are local. It should be ensured that content sharing brings down prices as expected.

Conclusion

In conclusion, we are happy that all our objectives for organizing the earlier Preparatory NgNOG (at the University of Ibadan) and this full NgNOG Event have been achieved, and much more. We have successfully:

- Domesticated AfNOG while retaining all its flavors as a tested training platform we reverse, and started the process of customizing curriculum. From the instructors, through the curriculum and our helpers, all the way to our NgNOG T-Shirts, the event was rather like AfNOG;
- Improved uptake of Nigerians at AfNOG workshops;
- Provided a platform for those trained at AfNOG and others willing to do so, to put something back by training others, thereby assisting AfNOG to achieve its own objective;
- Initiated a real and vibrant community of volunteers and, through the Conference, stimulated interactions and partnerships among network operators, senior academic network managers, the private sector and policy makers; and
- Accelerated the rate of technical training and capacity building in our country, while enhancing the participation rate of academic network operators in Internet Technology programs, particularly those from Nigerian Partnership institutions.

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