# **Network Operations Groups**

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### Internet Operations Groups

- Where network engineers and operators meet their colleagues
  - Peering & Business relationships
  - Industry relationship
  - Technology discussions
  - Operational best practices
  - Compare experiences (supplier, operational,...)
  - Purchasing decisions influenced
  - Networking software features worked out
  - Employment opportunities
  - Keeping the Internet Working

# Regional Network Operations Groups





- North American Network Operations Group
  - Evolved from NSFNET 'Regional Techs' meeting in 1994
  - Now attracts participants from Europe and Asia too
- Three meetings a year
  - October meeting co-located with ARIN
- Around 500 attendees
  - Depends on location
  - Depends on early publication of programme





#### Programme

- (two days of plenary, one day of tutorial)
- Plenary sessions
- Panel discussions
- BoFs (Peering & Security are long running events)
- Tutorials

#### Website:

www.nanog.org





- Asia and Pacific Operations Conference
  - Established in 1996
  - Co-located with one APNIC meeting
- Held annually on the last week of February
- Typical attendance around 600
- Moves around AP region
  - 2009 will be in Manila
  - 2010 will be in Kuala Lumpur





- Programme
  - 5 days of workshops
  - 4 days of tutorials and conference
    - Plenary sessions
    - Parallel streams
    - BoFs
    - AP organisations hold side meetings
  - 1 day APNIC Member Meeting
- Website:
  - www.apricot.net





- South Asia Ops Group
  - Established in January 2003
- Bangladesh to Afghanistan (SAARC region)
- Two events per year (January and July)
- Typical attendance now 250
- Moves around South Asia
  - SANOG 12, August 2008 Kathmandu
  - SANOG 13, January 2009 Lahore
- Yet to visit Maldives and Afghanistan





- Programme
  - 5 days of workshop
  - 2 days of tutorial
  - 1.5 days of plenary conference
  - BoFs & side meetings
  - APNIC Open Policy Meeting showcase
  - NREN meeting
- Website:
  - www.sanog.org





- African Ops Conference
  - Established in 2000
  - Focused on hands-on Workshops
- Meets once per year
  - Co-located with one AfriNIC meeting
- Typical attendance around 120
- Moves around Africa
  - AfNOG 2008 will be in Rabat





- Programme
  - 5 days of workshop
  - (Significant investment in time and effort to build infrastructure prior to workshops)
  - 2 days of tutorial (and advanced workshop topics)
  - 1 day of plenary conference
- 2 day AfriNIC meeting follows
- Website:
  - www.afnog.org





- South Pacific Ops Group
- Launched after APNIC 18 in 2004
- Meets annually:
  - PacNOG 4 will be in Vanuatu
- Programme
  - 5 day workshop
  - 2 day discussion/conference
- Website:
  - www.pacnog.org





- Middle East Network Operators Group
  - Launched in April 2007
  - (Following RIPE NCC regional meeting in Bahrain in November 2006)
- Meets twice per year (April and Oct/Nov)
  - MENOG 3 in Kuwait last month
  - Next meeting locations in Egypt and Oman
  - Actively participating in RIPE 57 in Dubai





# MENOG (2)

- Programme
  - 2 days plenary conference
  - 1 day tutorials
- Still very early days, with future expansion being planned:
  - Decision makers meeting
  - Hands-on workshops
- Website:
  - www.menog.net



# Country NOGs

- Many country NOGs
- Two deserve special mention:
  - NZNOG
  - JANOG





- New Zealand Operators Group
- Meets once per year
- Programme
  - 1 day of Tutorials
  - 2 days of Conference
- Around 120 participants (!)
- Informal structure, with two "guides"
- Website:
  - www.nznog.org





- Japan Network Operators Group
- Running since 1997
- Meets twice per year
- In Japanese
- 300-400 participants
- 2 days Conference
  - Wide range of topics
- Website:
  - www.janog.gr.jp



#### More information

- Other NOGs:
  - www.bugest.net/nogs.html
- Meeting planning:
  - "Network Education and Training Calendar of Events" maintained by the NSRC
  - ws.edu.isoc.org/calendar
  - Intention is to avoid conflicts and overlaps



#### **New NOGs**

- NOG creation is a recent phenomenon
  - Local Language
  - Local Needs
  - Local Culture
- SANOG and NZNOG are common models
  - Avoid temptation to introduce bureaucracy
- Potential new Regionals:
  - Central Asia
  - Caribbean
  - Latin America

# European NOGs

Some active examples

# UK Network Operators' Forum



- Established early 2005
- 10 successful meetings so far ©
  - 40-80 attendees each time
  - 3 per year
  - at least 1 inside and 1 outside London
- Mailing list of ~430 people
- 13-person Programme Committee
- 8-member Funding Council
- Chair: Keith Mitchell
- Website: www.uknof.org.uk

#### **UKNOF** Remit



#### From Charter:

- "To pro-actively support the sharing of knowledge, ideas and best practices to enhance the effective, stable and secure operation of the UK's Internet infrastructure as a whole."
- "UKNOF's remit is technical, and any discussion or activities involving commercial, legal or political issues should be limited to where they have a direct impact on technical aspects of network operations."
- "Distribution of clue" ©

# **Funding Model**



- Non-profit
- No registration fees to attend
  - even under-resourced ISPs can send people
- Ongoing meeting costs met by vendor sponsorship and contributions in kind
- Funding Council members provide ongoing financial buffer for stability, also governance oversight
- Programme Committee of active volunteers

# Things That Work



- Outreach to those UK ISPs who are not in a position to attend international meetings
- Bringing in international speakers back-to-back with other meetings
- Co-ordination with and support from other national Internet bodies (LINX, Nominet, ...)
  - & special thanks to RIPE NCC for regular speakers
- Sharing presentation material with other NOGs
- Keeping open mind and wide remit about interesting material
  - cover things that don't quite fit in elsewhere

# **Next Meetings**



#### UKNOF10

- 21st May, Wolverhampton
- Agenda: www.uknof.org.uk/uknof10/

#### UKNOF11

 11th (TBC) September 2008, in London at BBC Broadcasting House

#### UKNOF12

- Jan 2008
- Seeking venue/host/sponsors/speakers!



#### SwiNOG = Swiss Network Operators Group

- no legal organisation / entity
- www.swinog.ch

The Swiss Network Operators Group (SwiNOG) is an informal group of people who are concerned with engineering and operation of the Swiss Internet.

SwiNOG exists to enhance the quality of Internet services available in Switzerland. It does this by fostering the free exchange of technical ideas and information between different companies and organisations.

SwiNOG is a new group (not really anymore). New ideas and contributions are always very welcome. Subscribe to the mailing list and get involved!

Charter: www.swinog.ch/charter/index.asp



#### **SwiNOG Activities**

- www.swinog.ch
- IRC: irc.swinog.ch #swinog
- main Mailinglist: ~750 subscribers
- several sub-Mailinglists
- 2 yearly SwiNOG meetings in Berne with 100+ participants, current location is a local brewery ;-)

(why Berne? Due the fact that Switzerland has 4 official languages (English is none of them), Berne seems to be the compromise to bring the French and German speakers together)





#### **Upcoming SwiNOG Events**

- SwiNOG #16, May 14, 2008, Berne (sorry, registration is already closed)
- SwiNOG-BE62, June 2, Zurich (SwiNOG-Beer-Event)
- SwiNOG #17, October 22, 2008, Berne





# First Italian Peering Forum

- Pisa, 27 May 2008
- Organized together by the 4 main Italian IXPs
  - MIX, NaMeX, TIX, TOP-IX
- Languages: Italian/English
  - Not just aimed to Italian ISPs!
- Scope
  - To create an Italian Network Operators' Group
- http://www.peeringforum.it/
  - Register online



### ES NOG/GORE



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### Background

- Low participation from local community in Industry Fora :
  - Language barriers
  - Travel restrictions
  - High workload
  - Unawareness of what is out there



### Background

 A few of us got together and started a mailing list, put together a venue and sponsors and asked for community participation



#### **GORE Events**

- Grupo de Operadores de Red en España
  - Very specific
- www.esnog.net/gore1.html
- Attendance was overwhelming. Had to close registration ahead of the meeting due to having reached full room capacity (65 attendees)
- Participation was excellent. Lots of contributed material, lively discussion
- Thanks to the RIPE NCC and IANA/ICANN for joining



### **GORE Events**

- GORE 2 to be held in late
   September/October
- 2 venues have offered to host

### Questions?