

# Network Operations Groups

Philip Smith

SANOG 14

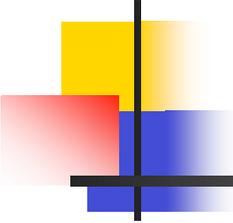
15 - 23 July 2009

Chennai



# Internet Operations Groups





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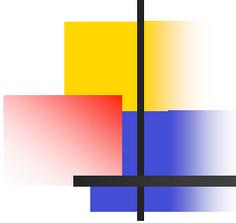
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- Where network engineers and operators meet their colleagues
  - Peering & Business relationships
  - Industry relationship
  - Technology discussions
  - Operational best practices
  - Compare experiences (supplier, operational,...)
  - Purchasing decisions influenced
  - Routing software feature requests worked out
  - Jobs fair
  - **Keeping the Internet Working**

The title "NANOG" is written in a large, blue, sans-serif font. To the left of the text is a graphic consisting of a vertical black line and several overlapping colored squares (yellow, red, blue) with a gradient effect. A horizontal grey line runs across the slide below the title.

# NANOG

- North American Network Operations Group
  - Evolved from NSFNET 'Regional Techs' meeting in 1994
  - Attracts participants from Europe and Asia too
- Three meetings a year
  - October meeting co-located with ARIN
  - NANOG 47 - October 2009, Detroit MI
  - NANOG 48 - February 2010, Austin TX
- Around 500 attendees
  - Depends on location
  - Depends on early publication of programme

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# NANOG (2)

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- 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](http://www.nanog.org)



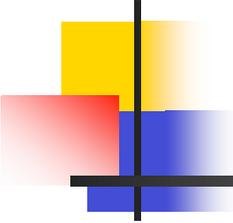
# APRICOT

- 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
  - 2010 will be in Kuala Lumpur
  - 2011 will be in Hong Kong



# APRICOT (2)

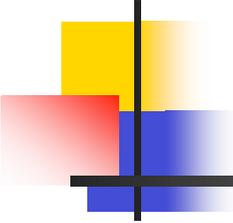
- Programme
  - 5 days of workshops
    - 5 parallel workshops
  - 4 days of tutorials and conference
    - Plenary sessions
    - Parallel streams (maximum of 4)
    - BoFs
    - AP organisations hold side meetings
  - 1 day APNIC Member Meeting
- Website:
  - [www.apricot.net](http://www.apricot.net)



# SANOG

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- South Asia Ops Group
  - Established in 2003
- Bangladesh to Afghanistan
- Two events per year (January and July)
- Typical attendance now 250
- Moves around South Asia
  - SANOG 14 in July 2009 in Chennai
  - SANOG 15 in January 2010 in Colombo
- Yet to visit Maldives and Afghanistan



## SANOG (2)

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- Programme
  - 5 days of workshops
    - 3 parallel workshops
  - 2 days of tutorials
    - 3 parallel tutorials
  - 1 to 2 days of conference
    - Includes APNIC specific content
- Website:
  - [www.sanog.org](http://www.sanog.org)



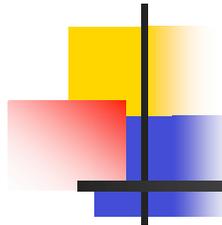
# AfNOG

- African Ops Conference
  - Established in 2000
  - Still centred around Workshops, based on the now defunct INET Workshops organised by ISOC
  - Co-located with one of two AfriNIC meetings
- Meets once per year in April/May
- Typical attendance around 120
- Moves around Africa
  - 2009 was in Cairo



# AfNOG (2)

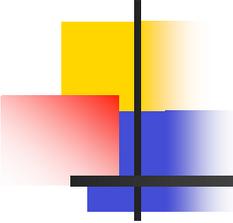
- Programme
  - 5 days of workshops
    - 4 parallel workshops including System Administration, Scalable Services and Scalable Infrastructure
  - 2 days of tutorials
    - 3 parallel tutorials, usually more detailed content than the workshops
  - 1 day of conference
- Website:
  - [www.afnog.org](http://www.afnog.org)

The logo graphic consists of a vertical black line intersected by a horizontal black line. To the left of the vertical line, there are three overlapping squares: a yellow one at the top, a red one in the middle, and a blue one at the bottom. The text 'PacNOG' is written in a blue, sans-serif font to the right of the vertical line.

# PacNOG

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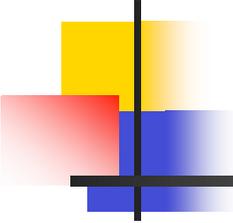
- South Pacific Ops Group
- Launched after APNIC 18 in 2004
- Meets twice a year as from 2009:
  - PacNOG 5: French Polynesia in June
    - Around 50 participants
  - PacNOG 6: Fiji in November
- Coordination & Programme Committee
- Financial support from ISOC, NSRC, PITA & local host



## PacNOG (2)

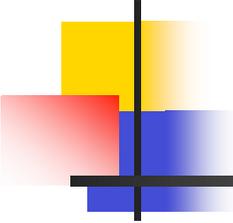
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- Programme
  - 1 day of conference including activity country reports
  - 5 days of workshops
    - Usually a mixture of routing, service infrastructure, services, and security
- Website:
  - [www.pacnog.org](http://www.pacnog.org)

The logo graphic consists of a vertical black line intersecting a horizontal black line. To the left of the intersection, there are three overlapping squares: a yellow one at the top, a red one in the middle, and a blue one at the bottom. The word "MENOG" is written in a bold, blue, sans-serif font to the right of the vertical line.

# MENOG

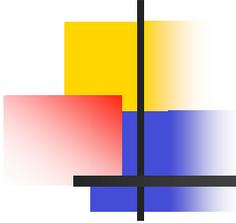
- Middle East Network Operators Group
  - Launched in April 2007
  - (Following RIPE NCC regional meeting in Bahrain in November 2006)
- Meets twice per year (April and Oct/Nov)
  - MENOG 4 was in Bahrain in April 2009
    - Around 100 participants
    - 3 day workshop for the first time!
  - MENOG 5 will be in Lebanon in October 2009



# MENOG (2)

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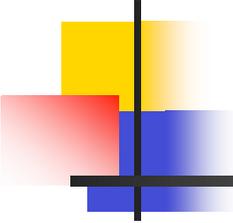
- Programme
  - 2 days plenary conference
  - 1/2 day tutorials
  - 3 days of workshop (as from Apr 2009)
- Still very early days, with future expansion being planned:
  - Decision makers meeting
- Website:
  - [www.menog.net](http://www.menog.net)

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# RIPE Meetings

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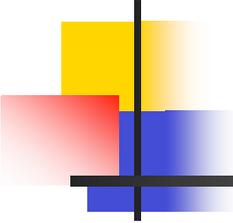
- There is no European NOG
- RIPE is closest Europe gets to an Ops Forum
  - Organised by RIPE NCC
- Two per year
  - May & October
  - Next RIPE meeting in Amsterdam in May
  - All conference, partly plenary, partly RIPE WG meetings
  - Now includes RIPE NCC member meeting (closed to RIPE NCC members only)
- Around 300 participants, depending on location



# Country NOGs

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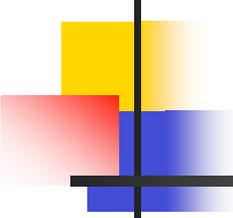
- Many country NOGs
- Two deserve special mention:
  - NZNOG
  - JANOG



# NZNOG

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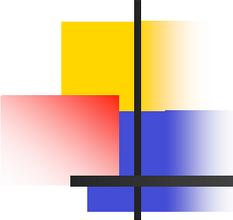
- New Zealand Operators Group
- Meets once per year
- Programme
  - 1 day of Tutorials
  - 2 days of Conference
- Around 120 participants (!)
- Fairly informal structure, with “guides”
- Website:
  - [www.nznog.org](http://www.nznog.org)

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# JANOG

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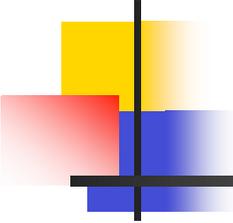
- Japan Network Operators Group
- Running since 1997
- Meets twice per year
- In Japanese
- 300-400 participants
- 2 days Conference
  - Wide range of topics
- Website:
  - [www.janog.gr.jp](http://www.janog.gr.jp)



# More information

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- Other NOGs:
  - [www.bugest.net/nogs.html](http://www.bugest.net/nogs.html)
- Meeting planning:
  - “Network Education and Training Calendar of Events” maintained by the NSRC
  - [ws.edu.isoc.org/calendar](http://ws.edu.isoc.org/calendar)
  - **Intention is to avoid conflicts and overlaps**



# New NOGs

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- 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
    - Caribbean Internet Forum ([www.cif.tt](http://www.cif.tt)) is NOG-like
  - Latin America
    - LacNOG has started by way of mailing list

Questions?