

# Network Management and NOC Workshop

## Instructors:

Hervey Allen, Phil Regnauld

## Who should attend:

Engineers and system staffs at ISPs and large networks including academic networks who are involved system management, network monitoring, and telemetry. The course is for those who need to manage diverse Network and NOC operations.

## Pre-Requisites:

Good knowledge of Unix, IPv4 addressing and general network concepts.

## Topics Covered:

The workshop will be a combination of theory and lab. The lab will constitute about 60% of the total course. Ubuntu Linux server version will be workshop platform. The course will cover:

- General Network Management and Planning Principles
- SNMP and other network management Protocols
- MRTG/RRDTool, Nagios, Netflow, SmokePing, Cacti
- Ticketing systems such as Trac/RT
- Scripting and adapting tools to your system
- Rancid and CVS for configuration management
- Log management and monitoring

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### Abstracts

- Network Management and NOC Workshop  
Hervey Allen (NSRC), Phil Regnauld (NSRC), Chris Evans (Delta-Risk)
- VOIP Deployment Workshop  
Jonny Martin (PCH), Vicky Shrestha (PCH), Daniel Griggs (FX Networks)
- Network Security Workshop  
Damien Holloway (Juniper Networks), Kunjal Trivedi I(Cisco), Merike Kaeo (Doubleshot Security)
- ISP Routing Workshop using IPv4 and IPv6  
Gaurab Raj Upadhaya(PCH), Amante Alvaran (APNIC), Shankar Vridhagiri
- Advanced Routing - BGP Multihoming with IPv4 and IPv6  
Philip Smith (Cisco), Mark Tinka (Global Transit)
- Toward The Internet 2.0  
Hiroshi Esaki, Ph.D.
- Advancing the Philippines' Internet Infrastructure  
William Torres, Ph.D.
- Integrating IP Wireless Sensor Networks  
PatrickÂ Grossetete, Archrock
- Lessons Learnt from the Beijing Olympic Games Website Measurement  
Rocky K. C. Chang, The Hongkong Polytechnic University
- A technical demo and overview of .tel  
Jim Reid (Telnic)
- BGP IN 2008 - what's changed Â  
Geoff Huston (APNIC)
- IPv6 Traffic levels on Hurricane Electric's backbone  
Martin Levy (Hurricane Electric)

- JANET's 40Gbps backbone  
Rob Evans (JANET)
- From IPv4 only to v4/v6 Dual Stack  
Shin Miyakawa (NTT)
- How to Keep CGNs from Breaking the Internet  
Randy Bush (IIJ)
- IPv6 Deployment at IIJ  
Yoshinobu Matsuzaki (IIJ)
- Session aware NAT  
David Miles (Alcatel-Lucent)
- IANA and DNSSEC at the root  
Richard Lamb (IANA)
- IPv6 at Google: lessons learned, state of the art, and the road to deployment  
Lorenzo Colitti(Google)
- Euro-IX update  
Serge Radovic (Euro-IX)
- IPv6 at Monash University  
John Mann(Monash University)
- What can IXPs do for IPv4/IPv6 route exchange?  
Takabayashi Takejiro (Japan Internet Exchange Co., Ltd.) and Mawatari Masataka (Co-author)
- What can IXPs do about IPv4 exhaustion?  
MAWATARI Masataka (Japan Internet Exchange Co., Ltd.) and TAKABAYASHI Takejiro
- DNS-OARC's Open DNSSEC Validating Resolver  
Duane Wessels(DNS-OARC)
- AMS-IX Update  
Cara Mascini(AMS-IX)
- DNSSEC in 6 minutes  
Joao Damas (ISC)
- NIXI - Internet Exchanges in India  
Amitabh Singhal,NIXI
- IPv6 - IPv4 Co-Existence: IETF Report  
Jari Arkko, Ericsson Research, IETF
- Rogue DNS servers - a case study  
Feike Hacquebord,Trend Micro
- Building a very large scale compute system for organizing the worlds information and making it universally accessible  
Vijay Gill
- Mobile Backhaul Architecture Options  
Rishi Mehta ,Redback Networks
- Membership Development  
Tomas Marsalek, NIX.CZ
- Broadband Forum v6 Home Networks  
David Miles, Alcatel-Lucent
- BGP Routing Scalability Considerations  
Danny McPherson,Arbor Networks, Inc. Co-author: Shane Amante, Lixia Zhang
- 2008 Infrastructure Security Report  
Danny McPherson,Arbor Networks, Inc.
- 32-bit ASNs  
Chris Malayter, Switch&Data, Co-author: Greg Hankins , Force10 Networks
- The Internet Regulatory Environment in Saudi Arabia  
Dr. Ibraheem S. Al-Furaih (CITC)
- Tutorial: Introduction to IPv6

Kurtis Lindqvist (NetNod)

- Tutorial: BGP Multihoming Techniques  
Philip Smith (Cisco)
- Tutorial: BGP Techniques for Service Providers  
Philip Smith (Cisco)
- Tutorial: Troubleshooting BGP  
Philip Smith (Cisco)
- Tutorial: Network Core Infrastructure - Best Practices  
Yusuf Bhajji (Cisco)
- Tutorial: Anatomy of a network attack, network forensics, network attack and defense  
APNIC Training Team and Team Cymru
- Tutorial: Internet Routing Registry  
APNIC Training Team
- Tutorial: MPLS Service, Applications & Deployment Best Practices  
Santanu Dasgupta (Cisco Systems) and Kasu Venkat Reddy
- Tutorial: Layer 2 Attacks and Mitigation Techniques  
Yusuf Bhajji (Cisco)
- Tutorial: Managing Voice Quality in Converged IP Networks  
Faisal Chaudhry (Cisco Systems)
- Tutorial: Internet Resource Management Essentials (IRME)  
APNIC Training Team
- Tutorial: DNSSEC Deployment  
Phil Regnauld and Hervey Allen (Network Startup Resource Center)
- Tutorial: MPLS-based Metro Ethernet Services  
Paresh Khatri (Alcatel-Lucent)
- Tutorial: IPv6 Deployment  
Mark Tinka (Global Transit International)
- Tutorial: IS-IS Deployment (Dual-Stack)  
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