
Short update on BGP-QoS + Report from RIPE57 in Dubai 2008

**ITG-FG 5.2.3 - Next Generation Networks
21. Sitzung am 19.03. 2009 – TU Chemnitz**

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Outline

1. BGP-QoS Update
2. RIPE 57

BGP-QoS Update

Draft changes + Observations

“BGP Extended Community Attribute for QoS Marking”

<http://tools.ietf.org/html/draft-knoll-idr-qos-attribute-03>

- New number assignment by IANA on “2008-12-30”
-> 0x04, 0x44, 0x40
<http://www.iana.org/assignments/bgp-extended-communities>
- Now transitive + non-transitive extended communities
- Processing Count %
-> Confederation remove AS Path parts on egress -> falsify CoS P. count
-> Attribute storage increases with differing P. Counts
- Copy of marking information in Internet Routing Registry (IRR) for security reasons

BGP-QoS Update

Draft changes + Observations

“BGP Class of Service Interconnection”

<http://tools.ietf.org/html/draft-knoll-idr-cos-interconnect-01>

- Added “Lower Effort” Per-Domain Behavior (PDB) [RFC3662]
- Changed CoS set support encoding to single bit PHB/PDB encoding -> 56 classes + combination possible
- LE + BE → most likely
- BE + EF (+AF) → voice / video
- LE + BE + EF + AF → current maximum
- Extended Token Bucket signalling to include “Minimum Policed Unit” & “Maximum Packet Size”

BGP-QoS Update

Draft changes + Observations

“BGP Class of Service Interconnection”

<http://tools.ietf.org/html/draft-knoll-idr-cos-interconnect-01>

- Quagga support configuration of several CoS marking sets + prefix selective sending to peers
- Wireshark is extended to support my attributes currently Development Version (1.1.2) -> will merge in stable version in summer -> <http://www.wireshark.org/download.html>
- Cisco routers cope well with the attributes -> 10 Byte per ext. community -> reasonable usage (4 classes / 2 layers) will add less than 1 MB to routing table storage (about 60MB)
- “unknown” ext. communities are signalled as “non-partial” attributes -> ongoing discussion with Juniper (JUNOS handling + partial settings)
- Survey on IXP support for IEEE 802.1p (802.1D) -> results on: <http://www.bgp-qos.org/qos-ixp/>

Dates and Location

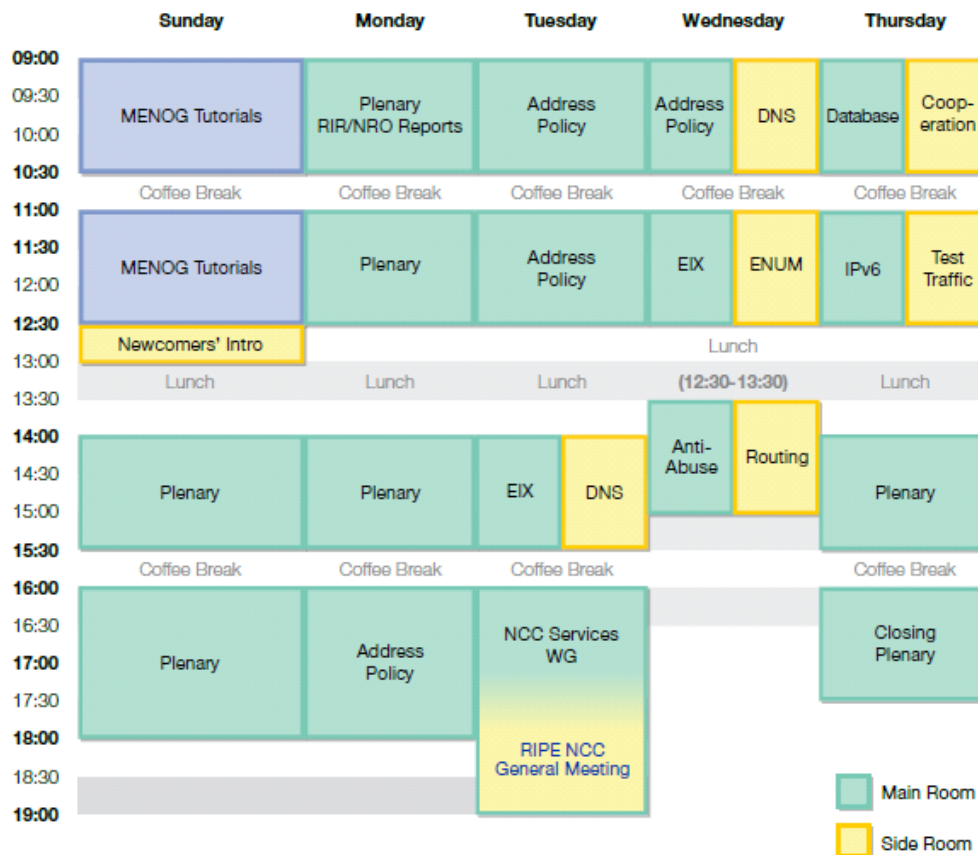
Host:



Dates

- 57th RIPE meeting (<http://www.ripe.net/ripe/meetings/ripe-57/>)
→ 26 - 30 October 2008

<http://www.ripe.net/ripe/meetings/ripe-57/presentations/>



Dates and Location

Location → JW Marriott Hotel - Dubai



Sessions → Topics of Discussion

Sunday, 26 October, MENOG Tutorials 09:00 - 12:30

[Managing Voice Quality in Converged IP Networks at MySpace](#) (7.1 KB)

Presenters: Faisal Chaudhry, CISCO & Syed Khurram, CISCO

Date: [Sunday, 26 October](#), 09:00 - 12:30

Location:  Baniyas Room

Abstract:

This tutorial will cover building blocks and various scenarios for VoIP networks. Service Providers and Enterprises around the world are deploying. We'll then cover voice quality issues in VoIP networks and steps to mitigate such issues - IP QoS tools, network loss plan etc.

- QoS Intro + Configurations for VoIP
- L2 fragmentation almost omitted

[IPv6 Tutorial](#) (2.7 KB)

Presenter: Kurt Erik Lindqvist, NETNOD

Date: [Sunday, 26 October](#), 09:00 - 12:30

Location:  Jumeirah Room



Sessions → Topics of Discussion

Sunday, 26 October, Plenaries

Newcomers' Intro - RIPE

Rob Blokzijl, RIPE Chair

Plenary 14:00-15:30

Live Demo of Telnic's Functionality

Jim Reid, telnic

Deployment Experiences with the New DECIX Infrastructure

Arnold Nipper, DECIX

A+P Address Hack - The Revenge of the Stupid Core

Randy Bush, IJ

Plenary 16:00-18:00

Emirates Internet Exchange (EMIX) Current Status and How We See the Future

Omar H Al Mansoori, Etisalat

Etisalat IPv6 Deployment Experience

Abed AlMoeen Agrabawi, Etisalat

Internet Development in Saudi Arabia

Nasser A. Albakr, CITC

- Rob -> Academics as fruitful disturbance
- [Nipper-DE-CIX_Infrastructure.pdf](#)
- Randy -> Carrier grade NAT -> CPE-NAT 4/6(/4) conversion

Sessions → Topics of Discussion

Monday, 27 October 2008

Plenary 09:00-10:30

LACNIC Report - Ricardo Patara

AfriNIC Update - Ernest Byaruhanga

ARIN Update - Ray Plzak

APNIC Update - German Valdez

NRO Update - Axel Pawlik

IANA Update - Barbara Roseman

- Address Usage/Assignment procedures by NICs
- Number Resource Organization – NRO
<http://www.nro.net>
[Pawlik-NRO.pdf](#)
- Lorenzo took over
-> kick the humans out
- Measurement -> much work + argument about preciseness
- Talk + Dt. Telekom

Plenary 11:00-12:30

Automatic Network Configuration

Michael Shields, Google

A One-Year Measurement Study of IPv6 Inter-Domain Traffic in the Internet

Scott Lekel-Johnson, Arbor

Traffic Categorisation and Inter-AS Peering

Thomas Knoll

Sessions → Topics of Discussion

Monday, 27 October 2008

Plenary 14:00-15:30

Network Convergence: On 50ms End-to-End Service Restoration

Robert Raszuk, Juniper Networks

Enhanced Cooperation Task Force Report

Malcolm Hutton

The Role of ISPs in Next-Generation Emergency Services

Richard Barnes

- Robert -> 50ms on Layer 3 -> only for a few customers
Randy: Shall we give all of our revenue to Juniper ?
- Assignment / revocation procedures (proof of use and demand)
- PI addresses -> Multi-homing vs. deaggregation

Address Policy Working Group Session 1

Agenda

Gert Doering

Current Policy Topics

Filiz Yilmaz

Anycasting Tier 0/1 ENUM

Brett Carr

Provider Independent (PI) IPv6 Assignments to End User Organizations

Jordi Palet-Martinez

Sessions → Topics of Discussion

Tuesday, 28 October 2008

Address Policy Working Group - Session 2

Informal "IPv6 Resources for RIPE Meetings"

Andrei Robachevsky, RIPE NCC

Running on Empty: Challenges of Managing IP Addresses

Tom Vest

The Next Step for IPv4

Remco van Mook

Proposal 2008-06: Use of Final /8

Philip Smith

Proposal 2008-07: Ensuring Efficient Use of Historical IPv4 Resources

Philip Smith

- Suggestions and discussion about final /8
- "We won't give Deutsche Telekom a /9 !"

Address Policy Working Group Session 3

Policy Proposal 2007-08 - Initial Certification Policy for PA Address Space Holders

Nigel Titley

Sessions → Topics of Discussion

Tuesday, 28 October 2008

EIX Working Group - Session 1

Agenda

Mike Hughes

The role of IXes in the Development of Internet in Europe.

Kurtis Lindqvist, Netnod

The Role of ISPs in Next-Generation Emergency Services

Richard Barnes

Netnod IX Update - RIPE 57

Nurani Nimpuno

VIX Status Update

Wolfgang Hennerbichler

DE-CIX Update

Wolfgang Tremmel

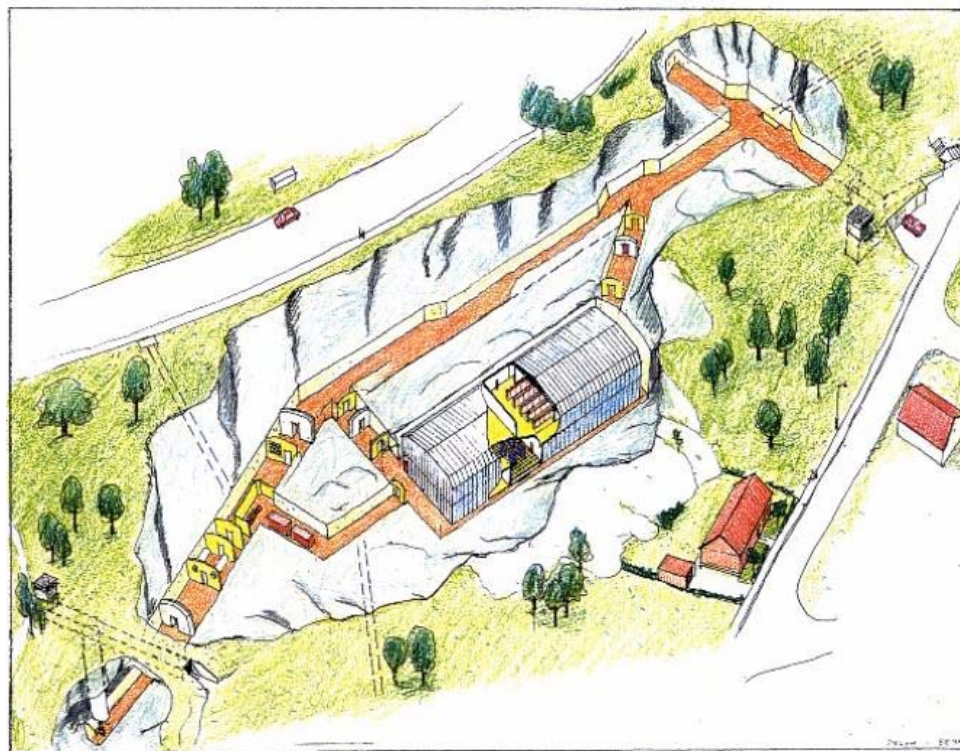
EURO-EIX Update

Serge Radovic

NIX.CZ Update

Ondrej Filip

- IX Updates -> changes in equipment, customer development, traffic development, web tools for statistics and alert systems



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Sessions → Topics of Discussion

Tuesday, 28 October 2008

AMS-IX Update

Kim van Grinsven

NaMeX Quick Update

Maurizio Goretti

LINX Report to EIX at RIPE 57

Mike Hughes

JNAP Overview

Katsuyasu Toyama

- DNS -> stability, root server settings, practical (experimental) observations

DNS Working Group - Session 1

Agenda

Jim Reid

ICANN/IANA Update

Kim Davies

Etisalat DNS Operational Experiences

Abdulla Bushlaibi

A Versatile Platform for DNS Metrics with its Application to IPv6 Penetration

Stephane Bortzmeyer

RIPE NCC Services Working Group

Agenda

Kurtis Lindqvist

RIPE NCC Update, Vision and Focus 2009

Axel Pawlik, RIPE NCC

Certification Update

Tim Bruinzeels, RIPE NCC

Hostcount Update

Mark Dranse, RIPE NCC

Sessions → Topics of Discussion

Wednesday, 29 October 2008

Address Policy Working Group - Session 4

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The Very Last IPv4 Allocations, Some Concerns About Perceived Unfairness

Daniel Karrenberg, RIPE NCC

The Language of RIPE Policy Documents

Filiz Yilmaz, RIPE NCC

DNS Working Group Session 2

IETF WG News Update

Lars-Johan Liman, Autonomica

RIPE NCC Update

Anand Buddhdev, RIPE NCC

Signing the Root

Jakob Schlyter

Sessions → Topics of Discussion

Wednesday, 29 October 2008

.org's Next Steps with DNSSEC

Lance Wolak, PIR

IDNS GCC Trial Project & IDN Backend architecture

Amani Mohammed Bin Sewaif, Etisalat

DNSSEC in CZ

Jaromir Talir

Followup on NTIA DNSSEC NoI

Jim Reid

GCC IDN Trial & IDNS Backend Architecture

Amani Mohammed Bin Sewaif, Etisalat

EIX Working Group - Session 2

VIX Update

Wolfgang Hennerbichler

Port Security @ MIX

Mauro Magrassi

IEEE802.3ba 40 and 100GE Update

Henk Steenman

Netmod IX Update - RIPE 57

Nurani Nimpuno

New MIX Data Center

Simone Morandini

Equinix Exchange Update

John Taylor

ENUM Working Group

+44 Update

Denesh Bhabuta

Tier-0 Report

Anand Buddhev

enumdata.org Update

Niall O'Reilly

ENUM Federation

Ondrej Filip

Sessions → Topics of Discussion

Wednesday, 29 October 2008

Anti-Abuse Working Group

Agenda

Brian Nisbet

- 4-byte ASN ...
- PKI / Secure Internet Routing Registry (IRR)
-> Russia, Iran ...

Routing Working Group

Agenda

Rob Evans

IRRToolset Developments

Shane Kerr, ISC

Toolset Tales from the 4-byte ASN Frontier

Dave Wilson, HEAnet

IPFRR and the Principle of Simplicity

Clarence Filisfilis, Cisco

MyASN

Franz Schwarzwinger, RIPE NCC

Sessions → Topics of Discussion

Thursday, 30 October 2008

Database Working Group

Agenda

Nigel Titley

Review of Action Points

Nigel Titley

Database Update

Jos Boumans

Mirroring of the RIPE Database

Denis Walker, RIPE NCC

Update from the Data Protection Task Force

Jochem de Ruig, RIPE NCC

DOMAIN Objects in the RIPE Database

Peter Koch

Cooperation Working Group

Agenda

Patrik Fältström

IPv6: What Should Governments Do?

Patrik Fältström

RIPE NCC Outreach Activities Update

Paul Rendek

IPv6 Working Group

Agenda

David Kessens

Global IPv6 Routing Table Status

Gert Doering

Consistent IPv6 Peering Addressing & Cleaner IPv6 Routing

Martin Levy

IETF Report on IPv4 - IPv6 Co-existence

Jari Arkko

Native IPv6 Traffic Trends at AMS-IX

Henk Steenman

IPv6 Usage in Sweden

Kurtis Lindqvist

A Versatile Platform for DNS Metrics with its Application to IPv6

Stéphane Bortzmeyer

Sessions → Topics of Discussion

Thursday, 30 October 2008

Test Traffic Working Group

Agenda

Henk Uijterwaal

IETF Developments

Henk Uijterwaal

TTM Developments

Franz Schwarzinger

TTM Status Update Q2 2008-Q4 2008

Ruven van Staveren

- IPv6 measurement -> BGP community attribute (15169:6666) as „signature“
[Colitti IPv6.pdf](#)
- [van-Mook-Non-working-Group.pdf](#)

Plenary

Automated Network Configuration

Michael Shields, Google

Global IPv6 Statistics - Measuring the Current State of IPv6 for Ordinary Users

Lorenzo Colitti, Google

A Strategy for IPv6 Adoption

Lorenzo Colitti, Google

Closing Plenary

Response to NTIA

Jim Reid

RIPE 57 Technical Summary

James Aldridge

Non Working Group

Remko van Mook

Summary

- Good organization, but rather expensive; well looked after
- First meeting outside Europe
- First meeting with filtered Internet (facebook, myspace ...)
- Meeting of the technicians, who know, what they are talking about
- Get-together of Service providers, ISPs, Registries and regulatory authorities and IXPs
- One presenter from an University

**Thank you for
your attention.**