Making the Internet better - collaborative efforts from the Internet Society

Andrei Robachevsky – Internet Society

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The Challenge

Economic factors
– Externalities, information asymmetry, free riding

Technical factors
– Technology building blocks

– Common understanding of the problem

– Common understanding of solutions

Social factors

– Collective responsibility

– Collaborative spirit

Best Current Operational Practices – a regional approach

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The Problem

Best current operational practices are shared between operators in many different ways:

- hallway conversations

- operator group presentations

- email lists

- web forum threads

- Personal relationships

- IRC/chats

BCOP repositories

Let's create a discussion groups inside RIR/NOG communities where operator-to-operator communication and creation of BCOP documents happens

The same group **COULD** be used for operators to communicate their needs and wants from the standards process

This BCOP processes should be owned by operators' groups collectively around the globe

Some of the identified topics (mainly from NANOG and RIPE region so far)

- Inhibiting Address Spoofing

- BGP Policies

- Peering Policies

- DNS Policies

- Email Policies

- ICMP Filtering

- Pingable attribute in whois

Some of the identified topics
(mainly from NANOG and RIPE region so far)

- How to test your network performance

- How to check your visibility from global Internet

- Ethernet OAM

- De-Aggregation: strict filtering /48s out of /32

- How are operators using IRR?

- IPv6 enterprise network renumbering scenarios, considerations, and methods

- … (we need more suggestions)

Removing one of the next IPv6 speedbumps

- One of the first speedbumps was addressed by RIPE-554

- Next speedbump is lack of IPv6 knowledge at ISP helpdesks

- Let's start a document "Generic IPv6 troubleshooting and procedures for helpdesks around the world…"

- This could be a first cross-regions cooperation effort as every region is probably a bit different.

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Collective responsibility and collaboration for Routing Resilience and Security

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Global Internet Routing Infrastructure

Our global commons

– We all depend and benefit from it

Far reaching effects

– Configuration errors, malicious actors

Interconnectivity and interdependence

– "Inward" and "Outward" risks

Routing Resiliency Manifesto

- **Provide a framework for addressing issues**

- **Encourage ISPs to take measures**

- **Promote the culture of collective responsibility**

- **Demonstrate ability of the industry to address issues**

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Routing resilience survey

Evidence based risk analysis

Filter by

Type

- All -

Priority

☑ Critical   ☑ Warning   ☑ Notice   ☐ Info

☐ Include previously classified

☐ Show only Active alerts

Filter

Legend

Critical	
Warning	
Notice	
Info	

ID	Alert Type	Your AS	Your Prefix	Detected Prefix	Origin AS	ASPath	Time (UTC)	Seen By #Probes	Duration	Status	Classify
794	More Specific Announcement by Customer	64500	208.67.220.0/24	208.67.220.0/25	666	1103 271 666	2013-09-19 15:47:35	666	0	active	✔
734	More Specific Announcement by Customer	64500	128.189.0.0/16	128.189.128.0/18	393249	28247 262781 28329 12989 271 271 271 393249	2013-06-10 14:15:40	8	22:44:20	active	➡
735	More Specific Announcement by Customer	64500	128.189.0.0/17	128.189.96.0/19	393249	34695 11670 13768 271 393249	2013-06-10 14:15:40	7	22:44:20	active	➡
736	More Specific Announcement by Customer	64500	207.23.0.0/16	207.23.160.0/19	11105	558 22822 271 11105	2013-04-18 18:58:04	8	22:01:56	active	➡
737	More Specific Announcement by Customer	64500	207.23.0.0/16	207.23.192.0/19	11105	40387 11537 6509 271 11105	2013-04-18 18:58:04	18	22:01:56	active	➡
738	More Specific Announcement by Other AS	64500	206.12.24.0/22	206.12.26.0/24	22950	553 680 20965 6509 26806 22950	2013-02-11 02:40:29	11	14:19:31	active	✔
739	More Specific	271	206.12.24.0/22	206.12.27.0/24	22950	3267 2603 6509 26806	2013-02-11	11	14:19:31	active	✔

More information

BCOP topics

- http://www.internetsociety.org/deploy360/about/bcop/topics/

Routing Resiliency Survey

- https://www.internetsociety.org/rrs/

Interet Technology Matters

- http://www.internetsociety.org/what-we-do/internet-technology-matters

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