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Ambiguity cleanup on IPv6
Address Space Policy for IXP

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History of IPv6 policy for IXP

Document was initially created to encourage IXP obtain IPv6 before IPv6 opened to everybody. Main purpose was to protect 2001:7f8:N:/29 block from end users and ISPs.

It was a perfect document in 2001.

Evolution:

15 August 2001 – RIPE-224 – set of templates

5 August 2002 – RIPE-256 – templates going to separate doc

February 2009 – RIPE-451 – IXP could obtain IPv6 directly from RIPE

Main idea of the policy does not changed for years.

Current practice

RIPE assign one /48 prefix from 2001:7F8::/29 block exclusively to IXP according to RIPE-451 policy

92 /48 currently assigned
29 of them has route object

<http://www.euro-ix.net/resources/list/eur/>

-list of the 127 known European IXPs maintained by Euro-IX

54 listed IXP (42%) does not obtain IPv6 yet

Violations of RIPE-451

Prefix	Country	Name of ISP (does not IXP)
2001:7f8:3:/48	GB	XCHANGEPOINT - (PacketExchange ISP since 2005)
2001:7f8:6:/48	BG	Bulgaria Online - ISP (AS12867)
2001:7f8:22:/48	DE	F-IX (PacketExchange ISP since 2005)
2001:7f8:3a:/48	DE	OPENCARRIER (AS41692) ISP
2001:7f8:3c:/48	GB	EUMEDCONNECT ISP
2001:7f8:4f:/48	BH	GGIX ISP from Bahrain
2001:7f8:52:/48	LB	BIX ISP from Lebanon
2001:7f8:59:/48	FR	FR-IX ISP
2001:7f8:5b:/48	PL	EPIX (AS50607) (not IXP)
Prefix	Country	Does not exist anymore
2001:7f8:1a:/48	ES	MAD-IX
2001:7f8:2e:/48	PT	LIS-IX (AS31073)
2001:7f8:36:/48	GB	SOVEX
2001:7f8:37:/48	SE	UppRIX
2001:7f8:3f:/48	SK	SK-KIX
2001:7f8:33:/48	DE	DE-CIX-ALPIX-IXP
2001:7f8:34:/48	SE	JIXP
2001:7f8:50:/48	EE	RTIX

RIPE delegated resources (16.11.2010)

		ASN		IPv4		IPv6
1	RU	3294	DE	5770	DE	390
2	GB	1855	EU	5202	GB	282
3	EU	1751	RU	4087	NL	219
4	UA	1719	GB	4070	RU	190
5	DE	1327	UA	2174	FR	148
6	PL	1228	PL	2021	CH	120
7	RO	1172	FR	1988	SE	114
8	FR	673	NL	1604	CZ	99
9	CZ	659	CH	1364	IT	97
10	IT	616	CZ	1268	AT	95
18					UA	44

Why?



RIPE refuse IPv6 request for UA-IX

Unfortunately we can not assign an IPv6 block to UA-IX yet.

*According to <http://www.ripe.net/ripe/docs/ripe-451.html>
"there must be a clear and **open** policy for others to join"*

*According to UA-IX's web site, the joining policy is not open
and requires existing members to vote.*

At the end of IPv4 era we have:

- 1 – Any ISP or enterprise could get IPv6 prefix.
First IPv6 allocation to LIR is FREE!
- 2 – Several non IXP still use IPv6 from IXP
address range 2001:7f8:N:/48
- 3 – Any real IXP could be refused because
different reading of the “open” word

You as IXP are affected also!

Require ASN number from member – you are not open

Members of your IXP has right to vote about peering with newcommer – you are not open

Require local license to join – you are not open

National IXP does not allow International members - ...

Any IXP could be recognized as “not open” ...

“OPEN” must be removed

Carthago delenda est! (lat)



Thank You!

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