



IANA Update

Naela Sarras | RIPE 72, Copenhagen, Denmark | May 2016

IANA Update

- ⦿ Annual Customer Service Survey
- ⦿ Changes Based on Survey Feedback
- ⦿ Third Party Audit
- ⦿ IPv4 Recovered Pool Allocations

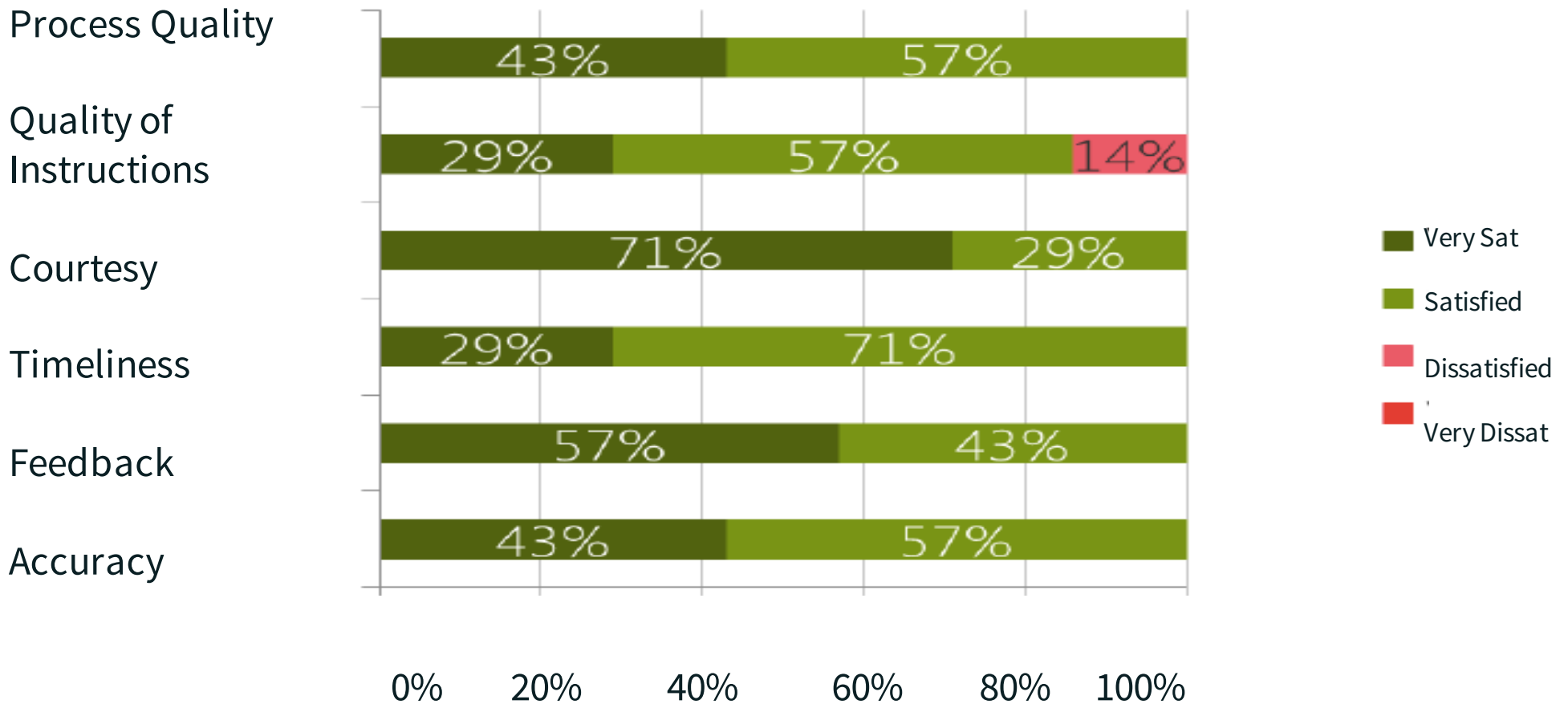
Annual Customer Service Survey

- Who Received the Survey ?
 - Sent to the CEO and Registration Services Managers for the five Regional Internet Registries
 - Also sent to other staff that had submitted requests for resources in the previous 12 months
- 44% response rate in 2015 from the recipients of the survey

	2013	2014	2015
Invitations sent	10	14	16
Response count	2	7	7
Response rate	20%	50%	44%
Overall satisfaction rate	100%	100%	98%

Annual Customer Service Survey

2015 IANA Functions Customer Service Survey



Lessons from RIR responses

- One RIR respondent suggested that we confirm with each RIR who within the RIR should receive the survey
 - Next step – prior to sending the next survey, ICANN will reach out to the RIRs to receive recommended list of recipients
- One RIR respondent was unable to find the instructions for submitting number requests
 - Next step – move the instructions to a location on the website that is easier to find

IP Address Allocations

Internet Protocol Version 4 (IPv4)

- [IPv4 Address Space](#)
- [IPv4 Multicast Address Assignments](#)
- [IPv4 Special Purpose Address Registry](#)
- [IPv4 Recovered Address Space Registry](#)

Internet Protocol Version 6 (IPv6)

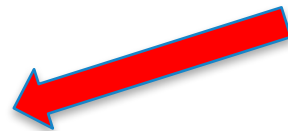
- [IPv6 Address Space](#)
- [IPv6 Global Unicast Allocations](#)
- [IPv6 Parameters](#) (Parameters described for IPv6, including header types, action codes, etc.)
- [IPv6 Anycast Address Allocations](#)
- [IPv6 Multicast Address Allocations](#)
- [IPv6 Sub-TLA Assignments](#) (DEPRECATED)
- [IANA IPv6 Special Registry](#)
- [Announcement of Worldwide Deployment of IPv6](#) (14 July 1999)
- [RIR Comparative Policy Overview](#)

Autonomous System Number Allocations

- [Autonomous System Numbers](#)
- [Special-Purpose AS Number Assignments](#)

Procedures

- [Internet Number Resource Request Procedure](#)



Instruction Page for Number Requests

About IANA

Introduction to IANA

Performance Reporting

Procedures

Presentations

Public Reports

Framework Documents

Reviews

Audits

Excellence & Quality

Glossary of terms

Contact us

<http://www.iana.org/help/inr-request-procedure>

Making Internet Number Resource Allocations to Regional Internet Registries

IPv4 Address Allocations

When an RIR has less than half a /8 in its inventory it should notify ICANN to begin allocations to all the RIRs from the Recovered IPv4 Pool. This is a one-time event, as allocations are made on a schedule and not in response to specific requests from each RIR; only one RIR needs to make the request for ICANN to begin allocation to all RIRs. Notification that an RIR has less than half of a /8 in its inventory should be sent to ipv4-request@iana.org.

The formula for distributing addresses from the recovered pool can be found at [ICANN's website](#).

IPv6 Address Allocations

RIRs requesting additional IPv6 address space because they have less than 50% of a /12 need to provide ICANN with a summary of how much IPv6 address space the RIR has allocated and/or reserved and how much is fragmented. The request and the summary documenting the distribution of the allocated space should be submitted in the [spreadsheet template](#) to ipv6-request@iana.org.

An RIR requesting additional IPv6 address space because it does not have enough space for the next nine months must provide ICANN with the amount of address space allocated by the RIR in each of the last six months. The request and the summary should be submitted in the [spreadsheet template](#) to ipv6-request@iana.org.

The formula for determining eligibility for additional IPv6 allocations can be found at [ICANN's website](#).

AS Number Allocation

An RIR requesting additional AS Numbers because it has assigned/allocated over 80% of its last block of AS Numbers needs to provide a summary of assignments/allocations it has made. If the RIR is requesting more than one block of AS Numbers, it needs to provide a usage summary for the six months prior to the request. Requests for additional AS Numbers should be submitted in the [spreadsheet template](#) to asn-request@iana.org.

An RIR requesting additional AS Numbers because the number of free AS Numbers it holds is less than two months needed, must provide a usage summary for the six months prior to the request. Requests for additional AS Numbers should be submitted in the [spreadsheet template](#) to asn-request@iana.org.

The global policy for allocation of AS numbers can be found at [ICANN's website](#).

Third Party Systems Audit

- ⦿ Successful completion of its Service Organization Control (SOC) 3 audit of the RZ KSK System.
 - ⦿ Completion of 6th annual SOC3 audit
- ⦿ Completed the Service Organization Control (SOC) 2 audit of the IANA Registry Maintenance Systems with no exceptions.
 - ⦿ 3rd year of SOC2 annual audit
- ⦿ Audits are conducted annually and help us to constantly monitor and improve our systems
- ⦿ <https://www.iana.org/about/audits>

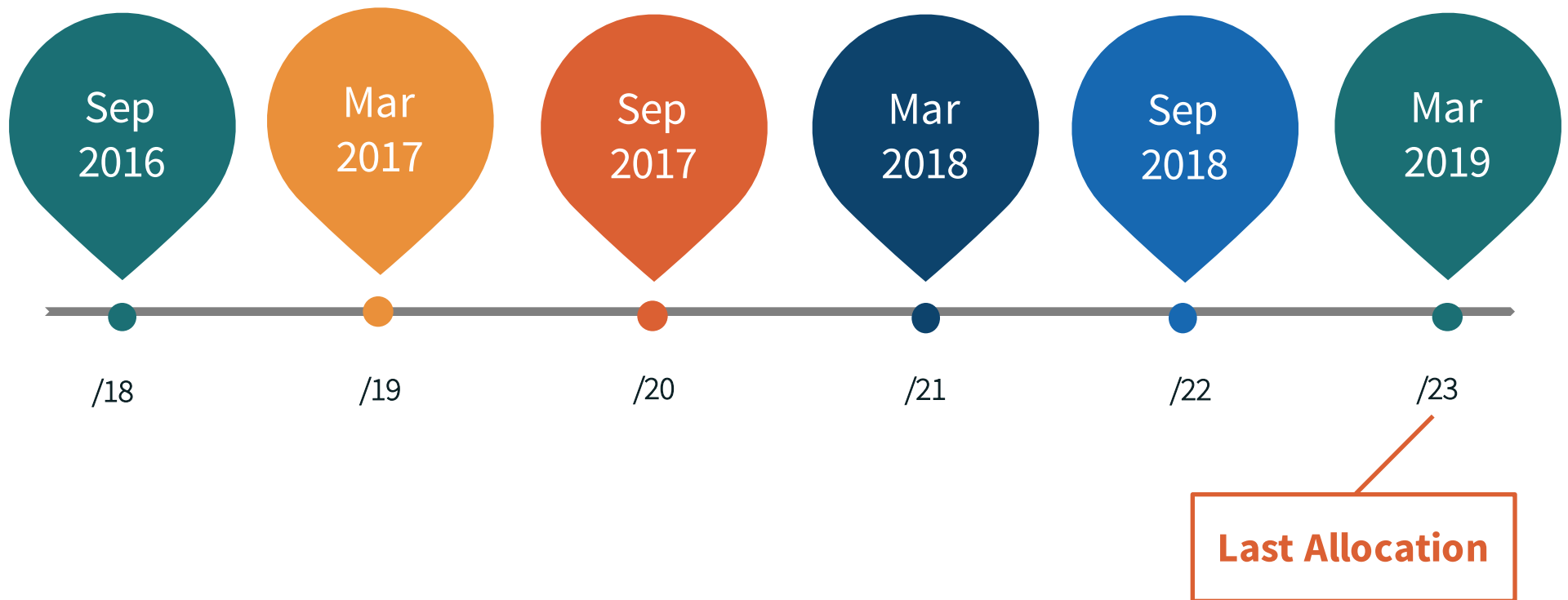
IPv4 Recovered Pool Allocation

- ⦿ 1 March 2016: Each RIR received the **equivalent of a /15**
- ⦿ Next allocation will take place 1 September 2016
- ⦿ Registry: <http://www.iana.org/assignments/ipv4-recovered-address-space>
- ⦿ Allocation tool: <https://github.com/icann/ipv4-recovery-algorithm>
- ⦿ Global policy: <https://www.icann.org/resources/pages/allocation-ipv4-post-exhaustion-2012-05-08-en>

IPv4 Recovered Pool Allocation – 1 March 2016

Allocation made	RIR	Allocated addresses
3/1/2016	AFRINIC	66.251.128.0 - 66.251.191.255
3/1/2016	AFRINIC	146.196.128.0 - 146.196.255.255
3/1/2016	AFRINIC	164.160.0.0 - 164.160.255.255
3/1/2016	AFRINIC	192.145.128.0 - 192.145.191.255
3/1/2016	APNIC	45.65.16.0 - 45.65.63.255
3/1/2016	APNIC	146.196.32.0 - 146.196.127.255
3/1/2016	APNIC	160.19.208.0 - 160.19.223.255
3/1/2016	APNIC	160.20.0.0 - 160.20.15.255
3/1/2016	APNIC	160.20.48.0 - 160.20.63.255
3/1/2016	APNIC	160.202.32.0 - 160.202.63.255
3/1/2016	APNIC	160.202.128.0 - 160.202.255.255
3/1/2016	APNIC	160.238.64.0 - 160.238.95.255
3/1/2016	APNIC	192.140.128.0 - 192.140.255.255
3/1/2016	ARIN	45.223.0.0 - 45.223.255.255
3/1/2016	ARIN	160.202.64.0 - 160.202.127.255
3/1/2016	ARIN	192.144.128.0 - 192.144.255.255
3/1/2016	ARIN	209.107.128.0 - 209.107.191.255
3/1/2016	LACNIC	45.65.128.0 - 45.65.255.255
3/1/2016	LACNIC	72.44.16.0 - 72.44.31.255
3/1/2016	LACNIC	160.20.80.0 - 160.20.95.255
3/1/2016	LACNIC	160.20.160.0 - 160.20.207.255
3/1/2016	LACNIC	160.238.128.0 - 160.238.255.255
3/1/2016	LACNIC	192.140.16.0 - 192.140.127.255
3/1/2016	LACNIC	192.144.96.0 - 192.144.127.255
3/1/2016	LACNIC	192.145.192.0 - 192.145.223.255
3/1/2016	RIPE NCC	45.65.64.0 - 45.65.127.255
3/1/2016	RIPE NCC	147.78.0.0 - 147.78.255.255
3/1/2016	RIPE NCC	192.144.0.0 - 192.144.63.255
3/1/2016	RIPE NCC	192.145.0.0 - 192.145.127.255

IPv4 Recovered Pool Allocation



If we do not receive additional returned addresses, the last allocation from the recovered pool will take place in March 2019.

If we receive an additional 7 x /24s of returned space (1,792 addresses), then the September 2016 allocation would completely drain the pool.

Thank you!



Questions?

Reach us at:

Email: iana@iana.org

Website: iana.org

Thank you!