



RIPE NCC
RIPE NETWORK COORDINATION CENTRE

RIPE NCC Operational Update

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Chief Operations Officer

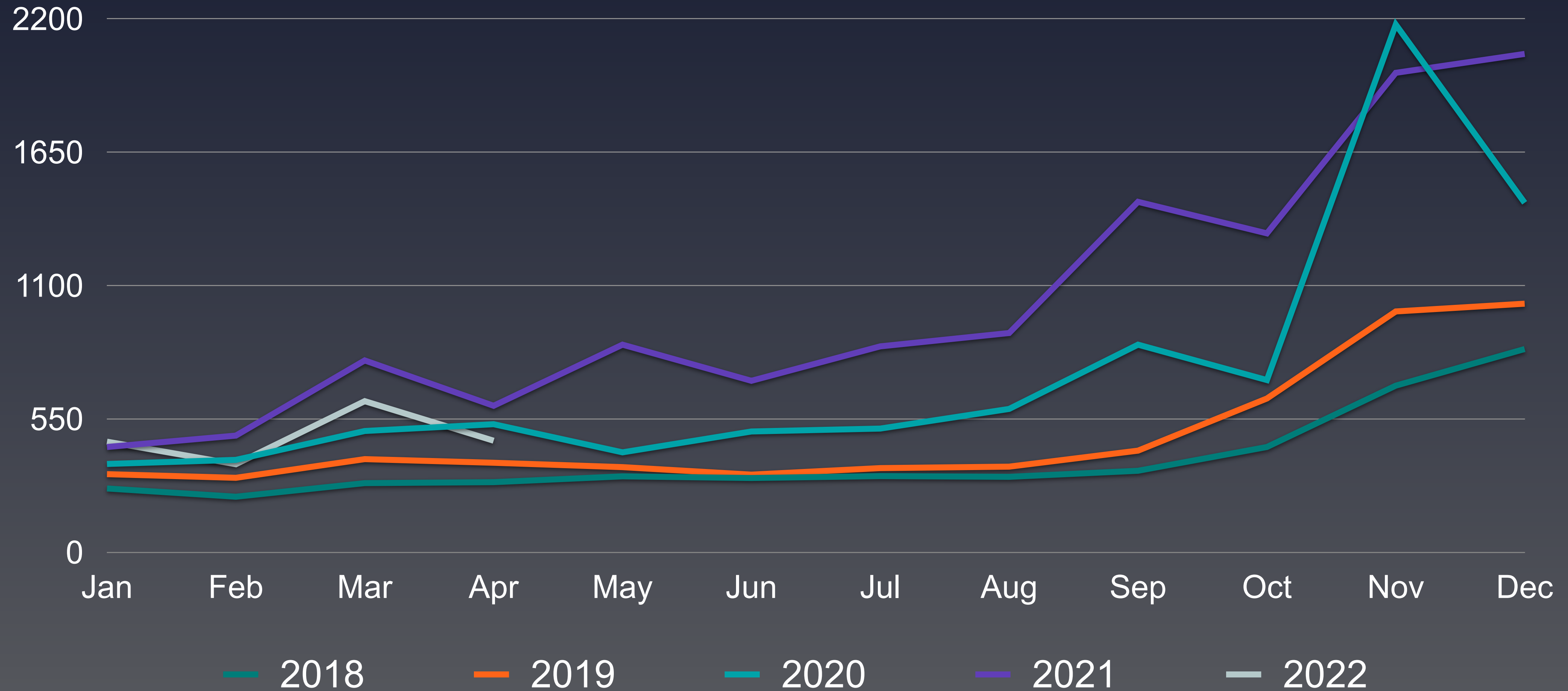
RIPE 84 | 18 May 2022



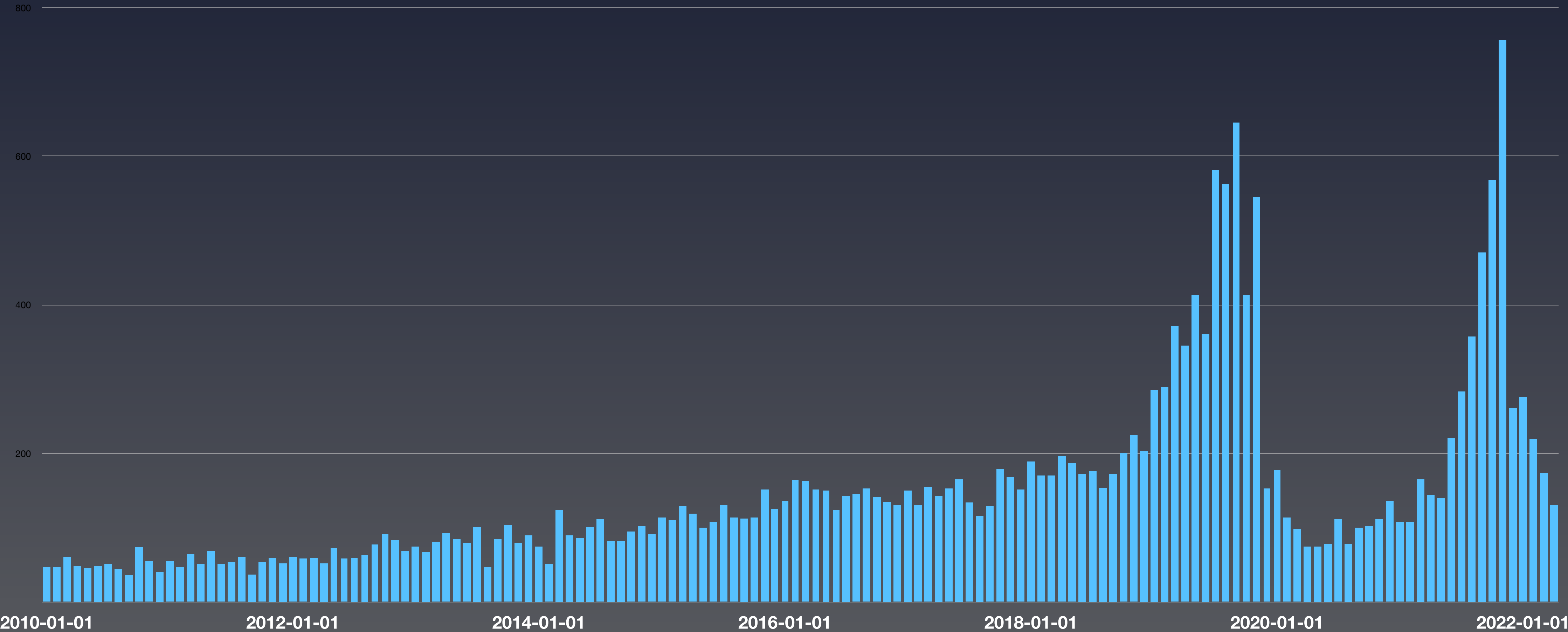
Ticket Statistics

Measuring success

Policy transfer tickets over time



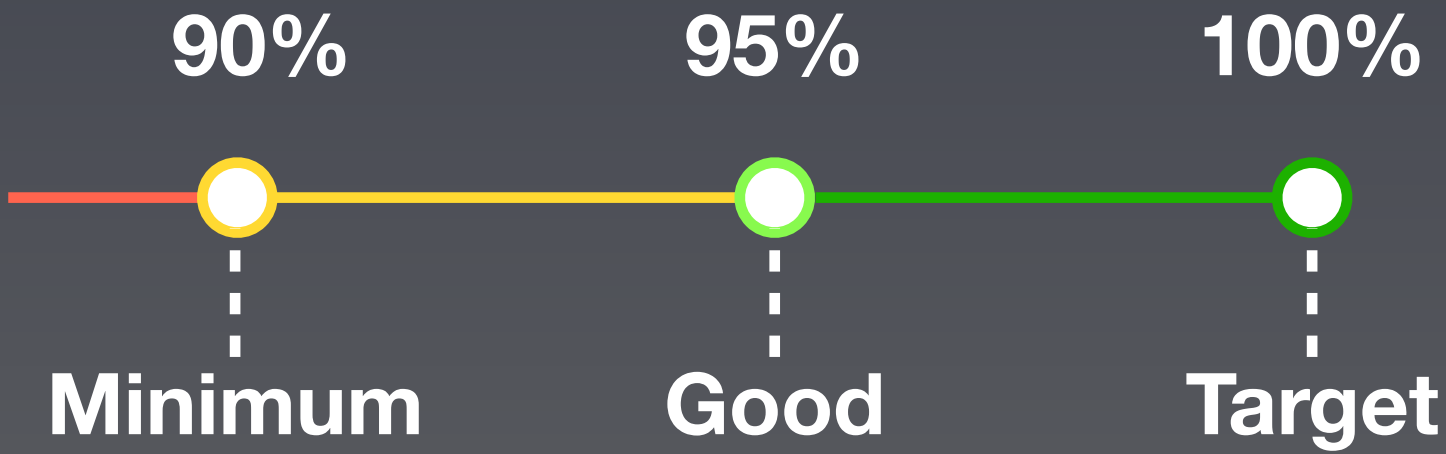
New LIR applications



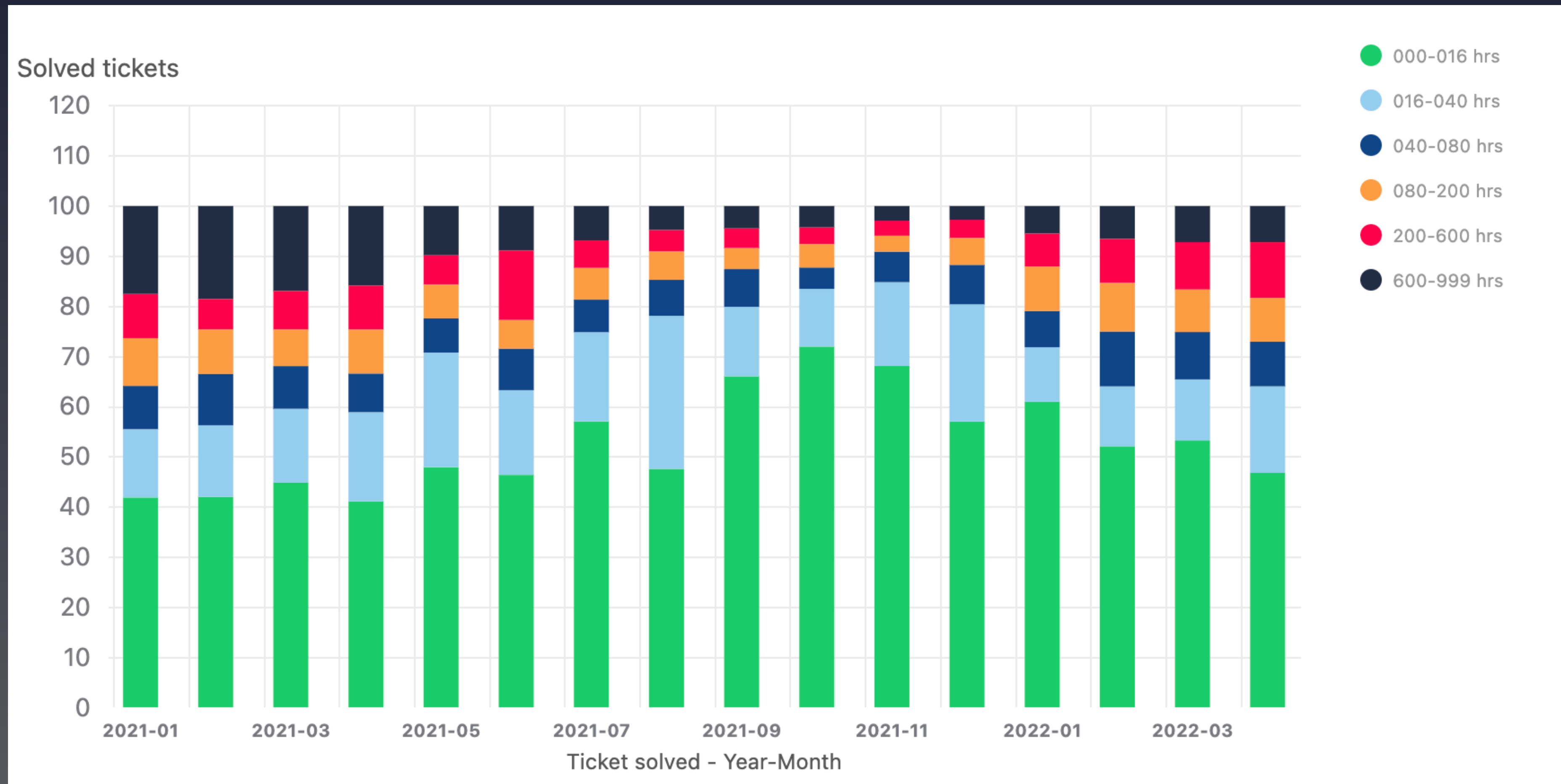
Tickets responded to within one business day



	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan (2022)	Feb	Mar	Apr
%	84.1%	87.3%	73.3%	64.8%	82.5%	93.4%	92.9%	94.9%	96.4%	98.3%	79.6%	92.5%
# not responded	662	503	1,000	1,511	963	328	446	306	141	67	1,082	393
Total	4,261	4,426	4,083	4,627	5,351	4,807	6,430	5,466	3,890	3,572	5,241	



Registration Services ticket lead time



Membership satisfaction



- We started measuring in March 2022 as a pilot
- Measuring Customer Effort Score (CES) and Net Promoter Score (NPS)
 - Industry standards on measuring customer satisfaction
- CES measures how difficult it is to perform a certain task
- NPS is typically used as an indicator of customer loyalty
- We are going to roll this out across the RIPE NCC

Customer Effort Score



To what extent do you agree or disagree with this statement?
"The RIPE NCC made it easy to handle my issue."

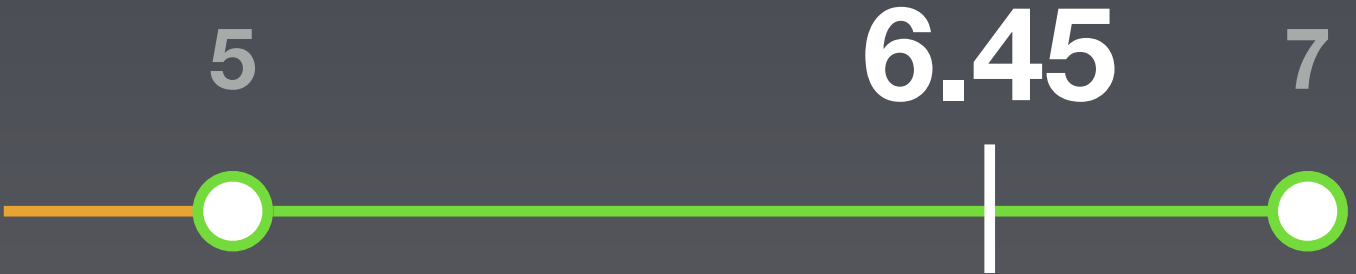
Registry Update



Member Update



New LIR

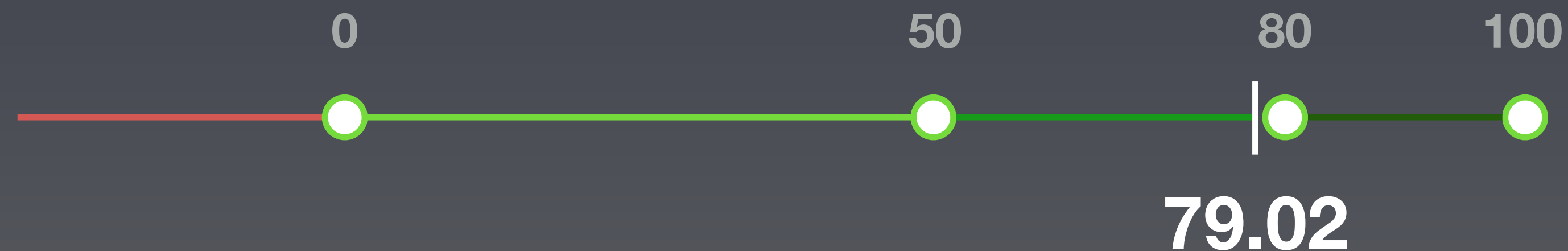


Net Promoter Score



How likely are you to speak highly of the RIPE NCC to your friends and colleagues?

- Total score: 79.02 (305 responses)



Summary



- Number of transfer tickets has declined when compared to last year
- Number of new LIR applications has also declined after a peak around November last year
- Unfortunately, workload remains high due to sanctions compliance
- According to our initial measurements, members are satisfied with our services
 - However, the biggest value of the survey is following up on low scores and improving our processes



Compliance

EU sanctions and their impact

EU sanctions compliance



- RIPE NCC uses third-party tooling (Altares Dun & Bradstreet and Dow Jones) for monitoring our sanctions compliance
- These tools provide automatic monitoring, which means an alert is received by the RIPE NCC a few days after new entities are added to the EU sanctions list
- After receiving an alert, extensive investigation by the RIPE NCC is still required before flagging a member or end user as sanctioned
- This investigation is done by our legal team, investigations team and an external legal advisor
 - It can last several weeks and require lots of work

Sanctions Transparency Report



- Provides data on how RIPE NCC members, end users and legacy resource holders are affected by sanctions, while respecting confidentiality and privacy
- <https://www.ripe.net/publications/docs/ripe-780/>

Date	Action	Relation	Country	IPv4	IPv6	ASN
01-Apr-20	Frozen	Member	IR	17,408	/32	1
01-Apr-20	Frozen	Member	SY	230,400	/29	1
20-Apr-2022	Frozen	Member	RU	7,552	/32	5
20-Apr-2022	Frozen	Member	RU	4,096	/32	5
				259,456	/29, /32, /32, /32	3



Cases under investigation

- Large number of potential matches that require manual investigation by RIPE NCC staff
- Because there is no grace period allowed for sanctions compliance, potential matches must be treated as though they are sanctioned until our staff can confirm otherwise

Date	Total alerts	Not yet started	Under investigation	Confirmed false positive or sanctions not applicable to RIPE NCC services	Confirmed sanctioned and applicable to RIPE NCC services
20-Apr-2022	766	362	173	227	4



Software Engineering

SSO and RPKI

RIPE NCC Access modernisation



- RIPE NCC Access (SSO) is our Identity Management (IDM)
- Its engine is Atlassian Crowd Data Center with a heavy home-grown layer on top
- This solution has a number of limitations:
 - Atlassian Crowd Data Center will be phased out in February 2024. By that time, we should either move to the cloud version or use another product
 - Modern two factor-authentication features (e.g. U2F, biometrics) or secure integration methods (OAuth 2.0, SAML 2.0, OIDC) aren't supported, or require extensive customisation in our home-grown layer
 - Home-grown layer is old and contains a large amount of technical debt

Proposed solution



- Replacement of the third-party engine (Crowd) and a ground-up rewrite of the home-grown layer
 - Modern third-party IDM engine, together with thin integration components
- Requirements for the third-party engine include (but are not limited to):
 - Adhering to the best security standards
 - Including features needed by our community out of the box (minimise customisation)
- Project is in its analysis phase, where different vendors are being assessed
- Delivery expected by Q4 2022

RPKI



- Strategic objectives for RPKI in 2022:
 - Operate a highly resilient and consistent RPKI Trust Anchor and repositories
 - Ensure that the RPKI Trust Anchor is secure, transparent and externally auditable
 - Ensure members have a world-class experience with RPKI services

Resiliency and consistency



- We scaled up the RRDP repositories
 - Moved to on-premise by December 2021
 - Improvements made using two CDN providers (Cloudflare and i3D.net)
- Currently reviewing the repository architecture to decide whether further improvements are needed, taking into account both RRDP and rsync
- Implementing a number of improvements in monitoring, testing environments and measurements
 - More details to be provided in routing-wg

Security and transparency



- RPKI core was open-sourced in February 2022
 - <https://github.com/RIPE-NCC/rpki-core>
 - Presentation in opensource-wg with our challenges during this project
- SOC2/ISAE3000 control framework developed last year
 - Decided to move to ISAE3000 control framework
- Currently working to audit the control framework by a third party
 - Objective is to have an external review of whether the listed controls are fit for purpose
 - Next step is to perform an audit on RIPE NCC internal processes and assess whether we are compliant with the framework
- Red team testing will be performed this year

World-class experience with RPKI services



- Implement "Publish in Parent" RFC 8181 support
 - Organisations who choose to run their own CA will have the option to publish their RPKI objects in repositories provided by the RIPE NCC
 - We believe this will help improve the resiliency of the RPKI ecosystem
- Pilot ASPA support
 - Autonomous System Provider Authorization (ASPA) is an active draft (a current proposal) in the IETF sidrops working group
 - ASPA objects describe the provider relations for an AS number
- Review and improve RPKI dashboard



Questions



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