Using NRO provided data – seeing trouble

shorter version for services wg

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Overview

- what data - significance

- observations of problems - *"**timely**"* big incident on Monday

- conclusions???

- backup …

provide authoritative overview of Internet number resources

- https://www.nro.net/wp-content/uploads/apnic-uploads/delegated-extended

- documentation in https://www.nro.net/wp-content/uploads/nro-extended-stats-readme5.txt

- file is normative reference in ID draft-rir-rpki-allres-ta-app-statement-01: to be used to audit RIR RPKI resource claims

- ID is technical base in NRO announcement 11 July 2017: Regional Internet Registries are preparing to deploy "All Resources" RPKI Service

- going back the bullets above means: **NRO** seems to be **promising** a service of providing good information in delegated-extended

- anyway providing an aggregated unified view of the resource distribution is a useful service of a well run registry and of a well cooperating registry system

Observing delegated-extended
(some examples) looking at ASN info since late 2017

- for identifying use of IANA or RIR *reserved* AS numbers in actual routes, IRR, and RPKI

- simple checks: consistency with IANA specials registry, changes day to day

- example incident 8/2018 IANA assigns some ASN blocks to RIRs, update to delegated-extended wrong and inconsistent with IANA, couple of weeks until fixed

- since 2019-02-11 AS0 moved to AFRINIC's free pool??!!

- **2019-05-20** most/all of one RIR's ASNs returned to IANA!!!!

Conclusions???

- after such observation: would I trust the more complex IP address info?

- NRO needs to explain joint responsibility for providing unified data and how to do that

- Why is the data still periodically inaccurate even after years of experience producing this?

Epilogue

- accidentally having relevant people in the same room (like this RIPE meeting) can be helpful for dealing with a problem

- so problem report quickly reached the person that has been hacking the data all the years

- observation 2019-05-21: delegated-extended seems to returns to normal

- observation 2019-05-22: delegated-extended continues to look normal

- we cannot rely on these favourable circumstance all the time

- so go back to previous slide and address seriously!

backup

- ...

Questions about NRO delegated-extended

- how is NRO generating/maintaining delegated-extended?

- data is collected/contributed/controlled/maintained from/by different parties?

- are interfaces and collection process well defined and reliably coordinated and maintained?

- who is responsible for correctness/consistency?

- are there precautions to ensure correctness and consistency?

- in the end: how reliable is the data?

- (for making full use of the data documentation of transfer process may be needed)