RIPE NCC
RIPE NETWORK COORDINATION CENTRE

Operational Update RIPE Database

RIPE NCC Database Team

Ed Shryane | 14 May 2020 | RIPE 80

The RIPE NCC Database Team

Whois Operational Statistics

- 56% increase in queries during 2019

- 24 billion queries in 2019 (~1K/sec)

- 43 million updates (~1/sec)

- No downtime for Whois query or update service

Whois Releases

- Whois 1.95.2

  - GDPR: apply Query Limit (personal data) for Version queries

- Whois 1.96

  - Deprecated mnt-lower attribute in aut-num objects

- Whois 1.97

  - Open NRTM service to everyone (no membership requirement or separate agreement)

  - Restrict maximum object size to 5MB (fixed crashing bug) (thanks Cynthia Revström)

  - Added HTTP and NRTM rate limiting

- Whois 1.97.1

  - Fixed updates signed with Elliptic Curve Public Keys (thanks Marco d'Itri)

Whois (Database)

- Aut-num mnt-lower Cleanup

    - Removed in December from 1K aut-num objects

- Legacy Status Remarks Cleanup

    - Removed in December from 19K inetnum and 15 aut-num objects

- GDPR API

    - Automate search for personal data (email address or person's name)

    - Internal for now

2018-06 NONAUTH Route(6) Cleanup

- Deployed on 16th January

- Cleanup Job responsible for **66%** of all NONAUTH route(6) objects deleted

  - 1049 objects (out of 1595 total deleted)

- Expect to increase as RPKI adoption increases

- 64K NONAUTH route(6) objects remaining

Numbered Work Items (NWI)

- NWI-8 (LIR´s SSO Authentication Groups)

  - Synchronise Users from LIR Portal to Default Maintainer: now used by 294 LIRs

  - Authentication Groups deferred

- NWI-9 (In-band notification mechanism)

  - NRTM Service opened to everyone

  - Use governed by RIPE database T&C's

  - Nearly **4x** distinct NRTM clients (116 in April vs. 31 in March)

  - "Next Generation" NRTM service TBD

- NWI-10 (Definition of Country)

  - Added country attribute to organisation object last December

  - Work in progress on the implementation (add organisation's country from legal address)

Locked Person Objects

- Cleanup Locked Persons Referenced from (IPv4) Assignments

- Progress since RIPE 79

  - Implemented and tested code changes

  - Announced implementation plan to db-wg

  - Published RIPE Labs article explaining the change

  - Emailed affected LIRs, taking feedback into account

- Remaining Work

  - Announce (updated) implementation plan

  - Email affected LIRs and maintainers listing specific changes

  - Perform cleanup (shortly after RIPE meeting)

  - Ask LIRs to review contact details on assignments

Database Website Improvements

- Optimised Query Page (<1MB page size, <1 second)

  - 70% of users just visit the query page once and leave

  - Focus on loading the page quickly for those users

- Added associated route(6), domain objects to My Resources

- Improved "Forgot Maintainer Password" automated process

  - Users are more likely to get an automated reset email, and not need the manual process

  - Fewer tickets for RIPE NCC staff

- Support Compressed responses for My Resources and IP Analyser

- Upcoming release to support mobile browsers

Proposed Changes

Client Certificate Authentication

- Support X.509 Certificate for Whois Update over HTTPS

- Advantages

  - Use standard feature of HTTPS (TLS) negotiation (good client support)

  - No secrets revealed for authentication

  - Uses existing Whois functionality

  - It's opt-in (you must choose to use it)

- Implementation

  - Tested it works internally

  - Waiting for security audit

  - Available for testing in RC soon, will announce to DB-WG

Domain Object Cleanup

- 1,686 domain objects (out of 801K) do not have an "nserver:" attribute

    - 1,313 ERX (Early Registration Transfer) Project

    - 130 Locked (were unmaintained)

    - 78 RDNS Consistency Cleanup

    - 165 Miscellaneous (mostly user-maintained)

- Objects not updated since September 2012

    - Stricter validation made the "nserver:" attribute mandatory

- We plan to cleanup these objects

    - Announce cleanup on DB-WG

    - Notify affected maintainers, update or delete domain objects
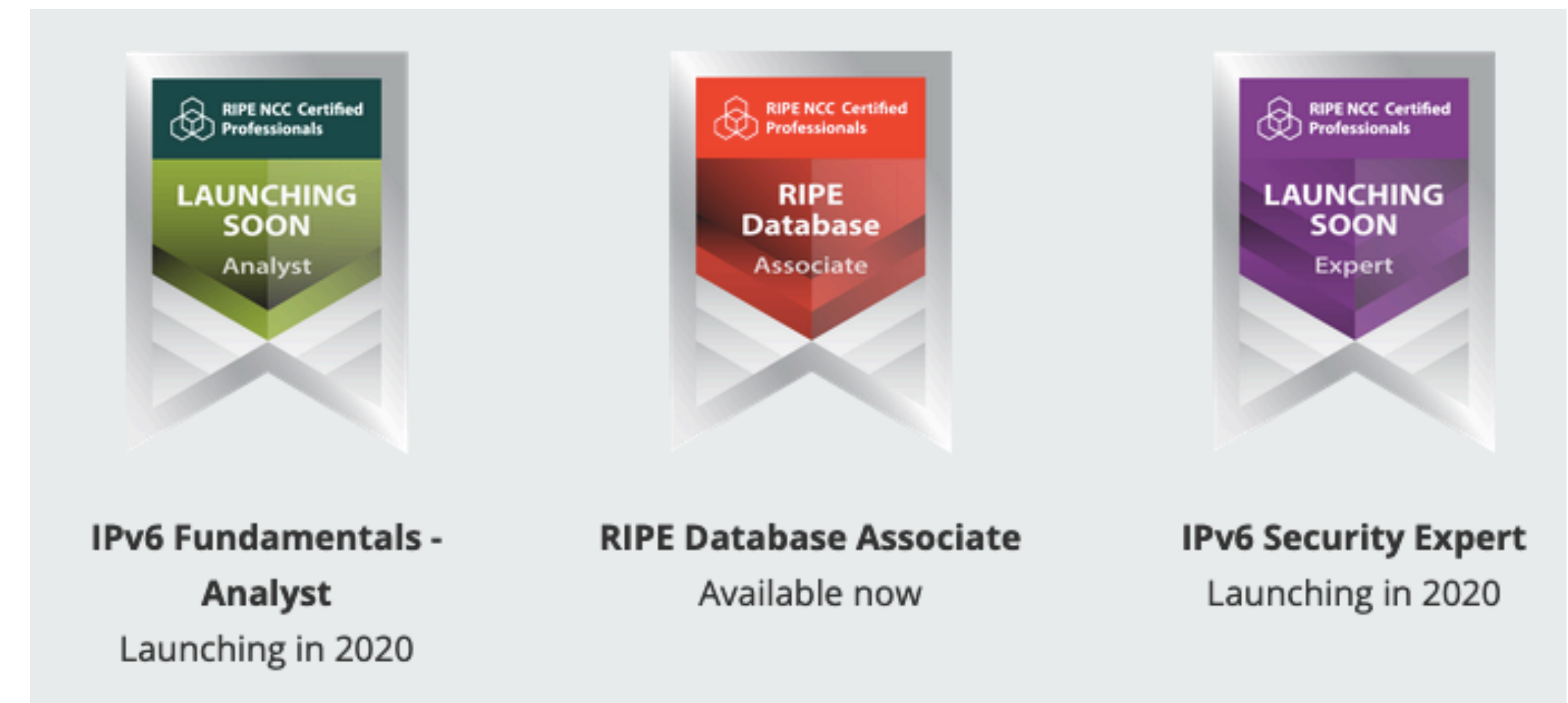
Upcoming Work

- Cloud Migration (upcoming presentation)

- Numbered Work Items

- RIPE Database Cleanups

- Usability improvements

- RDAP

- Set Default Maintainer

- Forgot Maintainer Password

RIPE NCC Certified Professionals

- Certify skills by taking an online proctored exam

- Earn digitally verifiable badges

- Launched on 1 April

  - *RIPE Database (Associate)* the first badge

  - *IPv6 Fundamentals (Analyst)* coming next

- Three vouchers sent to each LIR

- Over 270 exams taken so far (74% pass rate)

IPv6 Fundamentals - Analyst
Launching in 2020

RIPE Database Associate
Available now

IPv6 Security Expert
Launching in 2020

Questions

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