



RIPE NCC
RIPE NETWORK COORDINATION CENTER

Database Services Overview

A Deep Dive into Our
Services and Impact

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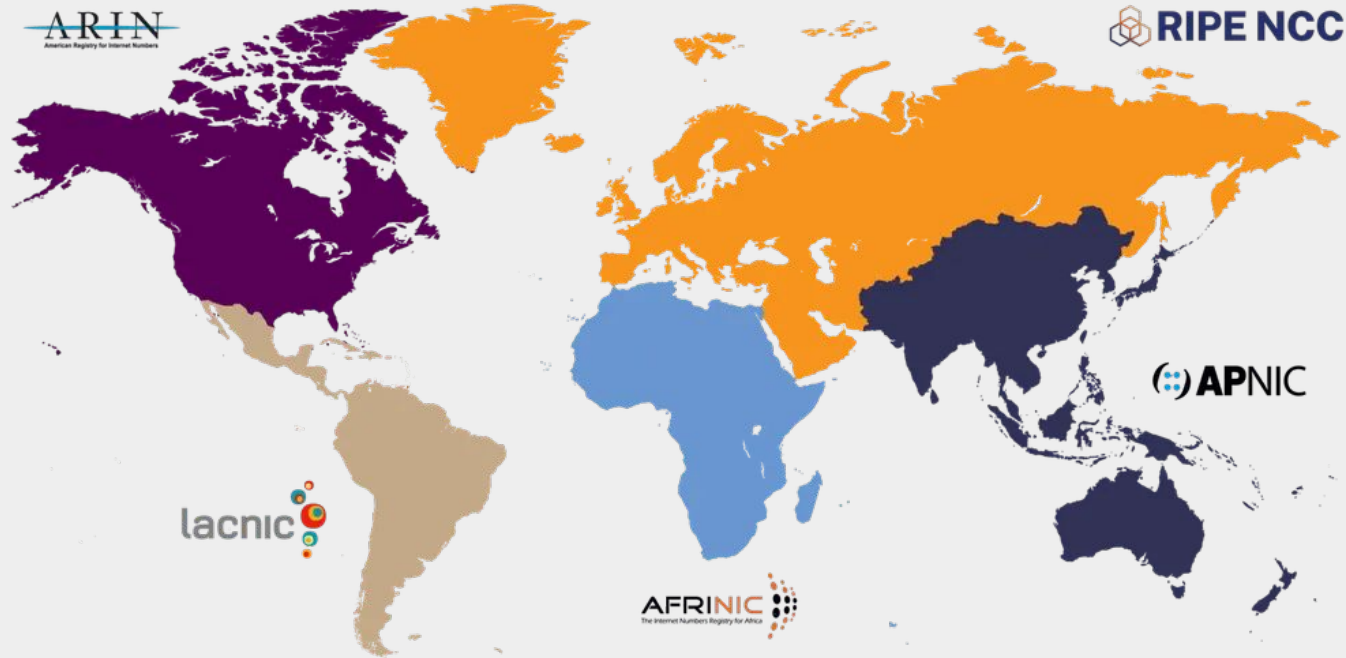
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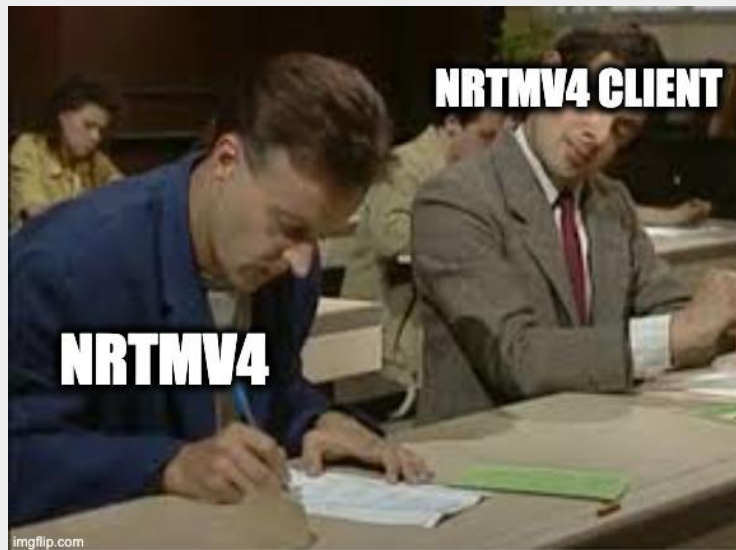
Introduction



Near Real Time Mirroring (NRTM)



- Upgrade from v3
 - Using https
 - Signing guarantees integrity
- Update Notification File
- Snapshot and Deltas logic
- Snapshot generated at midnight
- Deltas every minute if any change
- Clients
 - Java-based client
- [NRTMv4 Documentation](#)
- [Internet Routing Registry Daemon\(IRRd\)](#)





Heads up and future improvements

- A modern way of querying RIPE Database objects.
- Limited to certain object types (AUT-NUM, DOMAIN, INET(6)NUM, PERSON, ROLE, MNTNER).
- Sensitive information is filtered out (we keep email in main Entity object).
- RDAP relation and search is implemented and ready to use.
- Investigating how to close gaps between RDAP and WHOIS
- Idea to achieve is to have RDAP as an alternative to WHOIS



Bye bye to MD5 hashes

- MD5 hashes will be removed by end of 2025
 - First inactive passwords in Q2
 - Then: active passwords in Q3-Q4
- Recommend Using RIPE NCC Access (SSO)
- API KEYS for non interactive updates
 - RIPE NCC Access (SSO) is required as Auth method
 - Related to a specific user, not an organisation
- OAuth 2.0 coming soon.

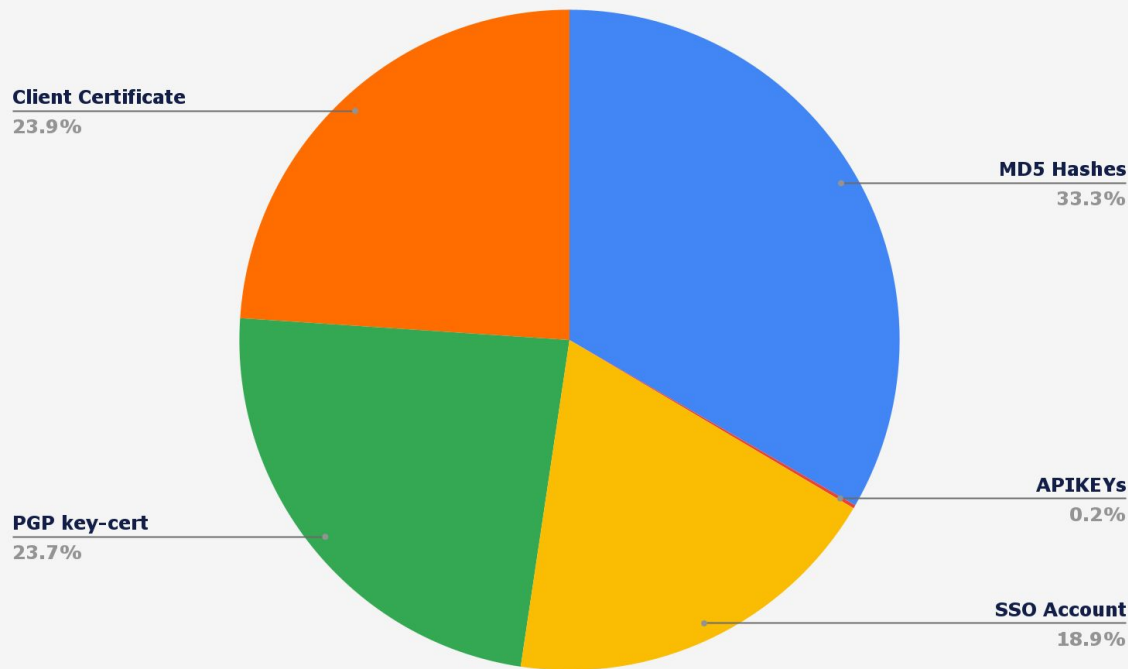


**MD5
Hashes**



**API Keys
OAuth2**

Authentication Methods Usage



This is an overview of the authentication methods used for making updates until April 2025



Update about UTF-8 status

- UTF-8: Some database interfaces already support UTF-8
 - REST API, Syncupdates, Mailupdates, RDAP, NRTMv4, Port 43 (using -Z utf8)
- Currently, we convert from UTF-8 to Latin-1 in Database Objects
- Should we support UTF-8 in the RIPE Database objects? And if so, where?
- Read more in this [RIPE Labs article](#)

Is This a Farewell?



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 - RIPE Database Support Email (ripe-dbm@ripe.net) and the Contact [Form](#)
- Different Test environments
- [RIPE Database Training Course](#)



Questions & Comments



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THANK YOU!