

WHOIS vs. RDAP

Getting domain info in 2026

• 10/1/26

WHOIS specification

- RFC 812: NICNAME/WHOIS (1982)
- RFC 954: NICNAME/WHOIS (1985)
- RFC 1834: Whois and Network Information Lookup Service, Whois++ (1995)
- RFC 3912: WHOIS Protocol Specification (2004)
 - *“The update is intended to remove the material from RFC 954 that does not have to do with the on-the-wire protocol, and is no longer applicable in today's Internet.”*

WHOIS

- exists since ARPANET
- plain text responses (no guaranteed structure)
- clients
 - CLI **whois** – installable in main distros (from the default package sources)
 - online
- deprecated for gTLDs (since Jan 2025, used to be required)
 - <https://www.icann.org/en/contracted-parties/registry-operators/resources/registration-data-access-protocol>
 - <https://www.icann.org/en/announcements/details/icann-update-launching-rdap-sunset-whois-27-01-2025-en>
 - <https://www.ietf.org/blog/current-state-of-rdap/>
 - “...by September (2025), 374 gTLDs no longer offered WHOIS...”

WHOIS

Live demo...

Registration Data Access Protocol (RDAP)

“RDAP is a replacement for WHOIS, which provides domain name & IP address registration information in JSON format over HTTP.”

(from <https://openrdap.org/>)

RESTful API

- HTTP(S) – encryption, access control, redirection, compression, caching
- JSON
- jCard (vCard in JSON)
 - https://rdap.rcode3.com/protocol/jcard_and_vcard.html

RDAP specification

- STD 95
 - RFC 7480: HTTP Usage in RDAP (**2015**)
 - RFC 7481: Security Services for RDAP (**2015**)
 - RFC 9082: RDAP Query Format (**2021**)
 - Replaces RFC 7482 (2015)
 - RFC 9083: JSON Responses for RDAP (**2021**)
 - Replaces RFC 7483 (2015)
 - RFC 9224: Finding the Authoritative RDAP Service (**2022**)
 - Replaces RFC 7484 (2015)

RDAP – 10 years in .cz! 🎉🎂🎊

- https://www.nic.cz/public_media/IT16/prezentace/Bruna_01.pdf
- <https://www.root.cz/clanky/rdap-na-stupce-protokolu-whois/>

Root.cz » Databáze

RDAP: nástupce protokolu WHOIS

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🗨 15 NOVÝCH NÁZORŮ

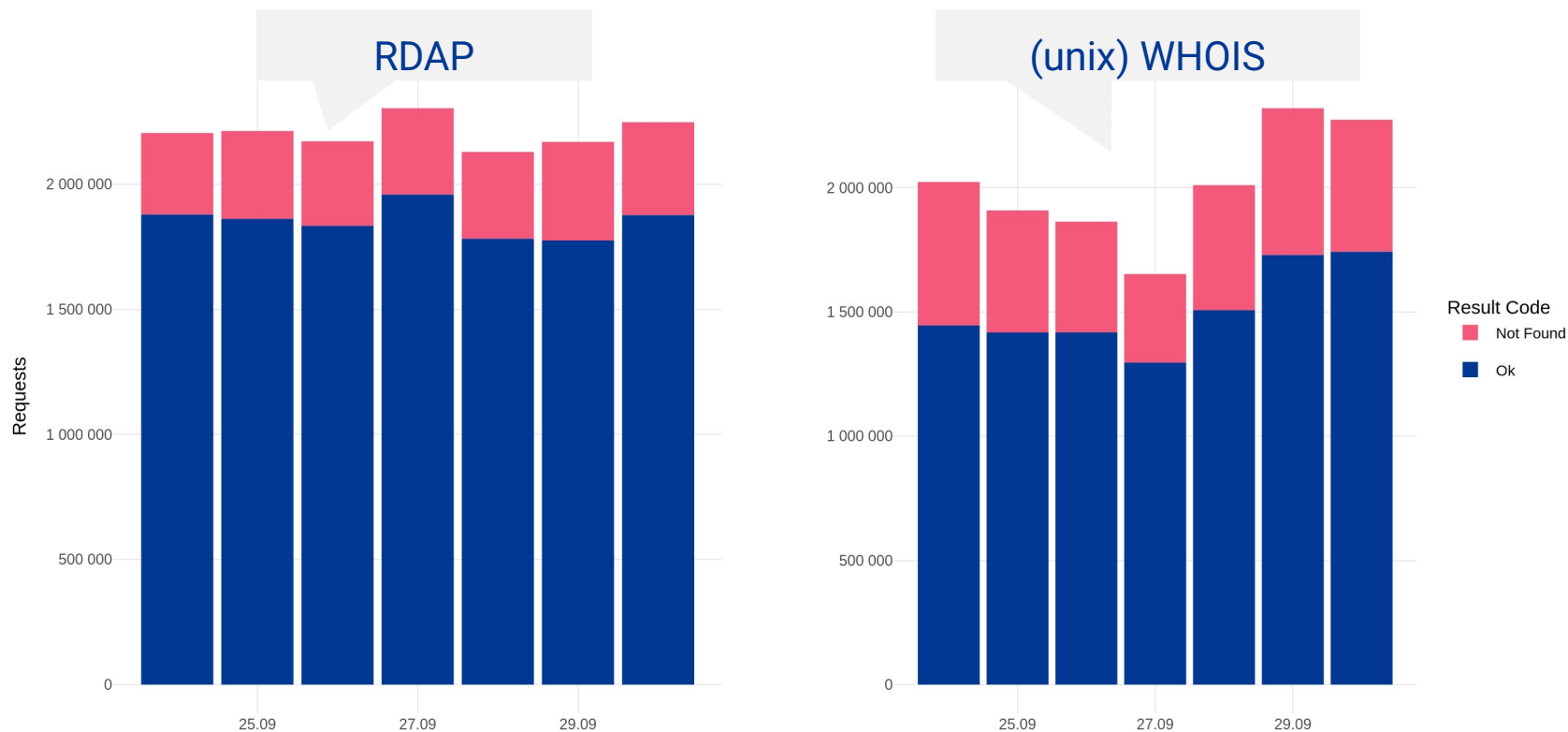


Ilustrační obrázek

Protokol WHOIS je tu s námi už přes třicet let a v mnoha ohledech je až příliš jednoduchý. Přesto se zatím nenašla jeho adekvátní náhrada. Tou by se mohl stát protokol RDAP.

RDAP vs. WHOIS – Current usage for .cz

Whois requests by user interface in the week before October 1, 2026 ⓘ



<https://stats.nic.cz/dashboard/en/Registry.html> > Whois requests

RDAP clients

- local

- OpenRDAP (Go)
<https://github.com/openrdap/rdap>
- Python RDAP client
<https://pypi.org/project/rdap/>
- rdapper – Perl RDAP client
<https://github.com/gbxyz/rdapper>

- online

- <https://lookup.icann.org/>
- <https://client.rdap.org/>
- <https://openrdap.org/>

- packages

- OpenRDAP   
 - <https://snapcraft.io/rdap> – outdated
- rdapper  fedora
- nothing found



RDAP

Live demo...

RDAP variants comparison

	FRED (CZ.NIC)	gTLD specifications
Conformance	fred_version_0	icann_rdap_response_profile_1, icann_rdap_technical_implementation_guide_1, redacted
Notices	Disclaimer	Required information for all responses, help, and domain
Contact identifier	Handle	ROID (Repository object identifier)
Registrar identifier	Handle	GURID (Globally Unique Registrar Identifier)
Redaction for privacy	Silent	Marked
Registrant details for a domain	Linked	Included
Registrar's RDAP	Not available	Required

Summary

- WHOIS is simple and well-known but phasing out.
- RDAP
 - is the successor of WHOIS,
 - clients are not so easily available yet,
 - provides basic information in identical way across servers,
 - but extended info is subject to follow-up specifications (conformance).

Thank you for watching!

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