

Directory Services at ARIN

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Available Directory Services at ARIN today

- Whois - Port 43
- RWhois
  - Delegated Whois-like service operated by Internet service providers
- Whois-RWS
  - Web Interface (whois.arin.net)
  - API – REST calls
- RDAP
  - Web Interface (search.arin.net)
  - API – REST calls

Services We Can Simplify

ARIN explored options to possibly retire the following three directory services:

- RWhois
- Whois RWS
- Whois

Retiring RWhois

ACSP Suggestion 2013.22:

Sunsetting of RWhois Support was submitted October 2013 and last publicly addressed March 2018.

The requirement to use RWhois or SWIP has been removed from the Number Resource Policy Manual, but there are still many users connected to this service. (*See NRPM 3.2)*

Proposed Solution for Consultation

- Those who wish to maintain their reassignments locally should use RDAP

  ARIN may be able to create a migration and/or translation tool to make this easier for users

OR

- Retire RWhois and push data into ARIN's database

Retiring Whois-RWS

Background

- Whois-RWS was a predecessor to RDAP
- Whois-RWS is based on XML and JSON; RDAP based on JSON
- RDAP is an IETF standard
- Both have defined APIs
- whois.arin.net is based on Whois-RWS

Proposed Solution for Consultation

- Move whois.arin.net to use RDAP backend (internal-only)
- Retire API with advance notice to users

Retiring WHOIS

Background

- Currently the most used method of accessing Whois data at the moment.
- Protocol is underspecified (RFCs 954 and 3912)
- Undefined queries
- Undefined results
- Lots of custom code
- Multiple areas where users can get confused during the search process
- No internationalization support
- Insecure

Proposed Solution for Consultation

Retire Whois with advance notice to users

RDAP – RFC 7480-7485, 9224 and Beyond (IETF Standard 95)

This is the emerging protocol going through the IETF, resulting in:

- Defined queries and results
- Multiple client implementations (26)
- Lots of authoritative server implementations (11)
- Automatic navigation to find results

- New features emerging such as
  - Geolocation
  - RPKI registration information (going through the IETF now)
- More features to come...

Regional Internet Registries and top-level domain operators will support RDAP

Whois-RWS vs RDAP

Whois-RWS	RDAP
Developed in 2010	Developed in 2014
Defined by ARIN	Defined by the IETF
Supported by ARIN Only	Supported by all Regional Internet Registries (RIRs)
Provides results in JSON and XML	Provides results in JSON
Returns results with resource information from ARIN (and pointers to records with other RIRs)	Returns results with resource information from participating RIRs and domain registries/registrars
Available from CLI and ARIN's web interface	Available from CLI and RIR web interfaces
Limited security support	Supports authentication and other security features
Supports ARIN resources with limited information for resources associated with other RIR's	Internationally supported (UTF-8 based)

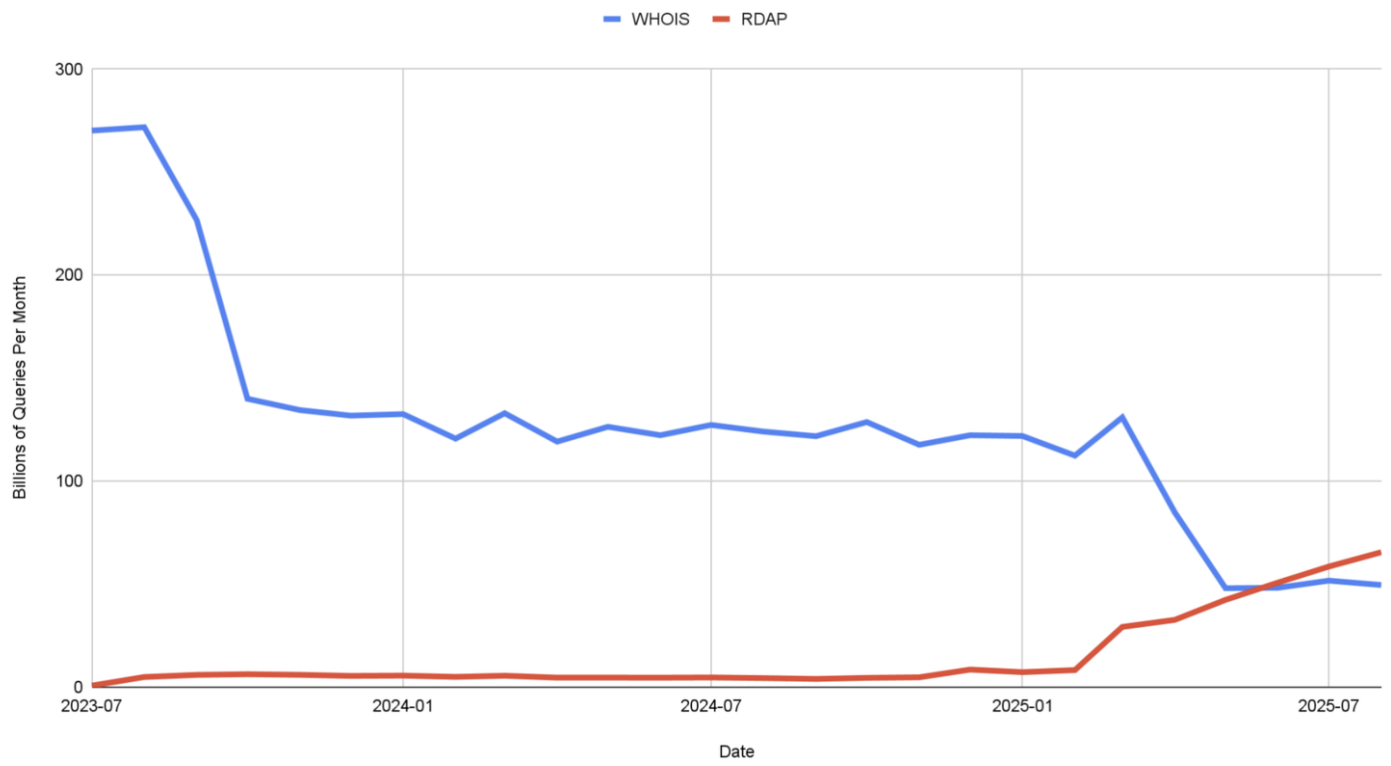
State of Whois today at Domain Registries

ICANN dropped the Whois requirement for most generic top-level domains (gTLDs) as of 28 January 2025

Many gTLDs have removed their Whois service

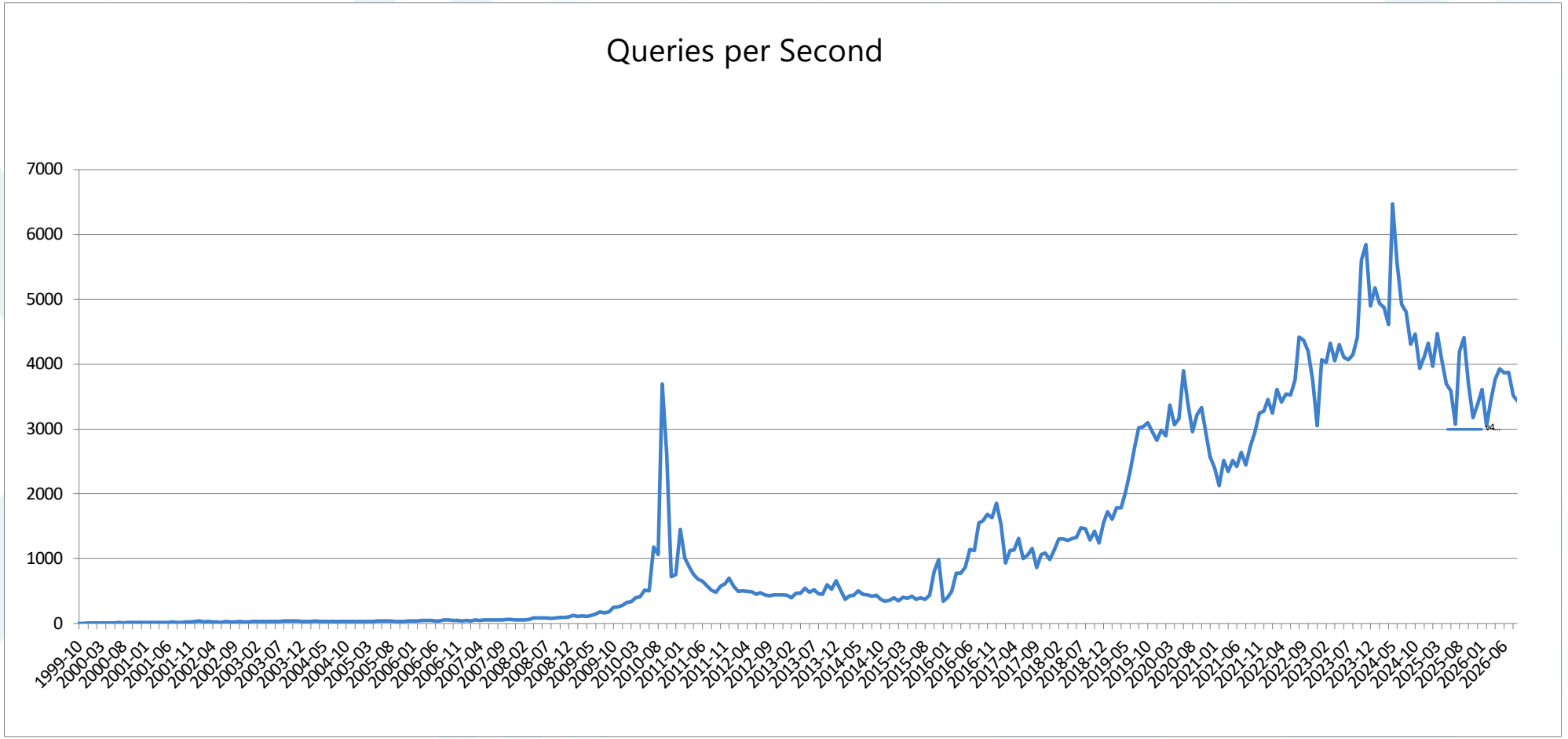
- At least 139 have dropped, according to ICANN in a ROW 14 presentation by Andrew Newton on 30 September 2025
- Whois usage is dropping

gTLD Directory Service Usage

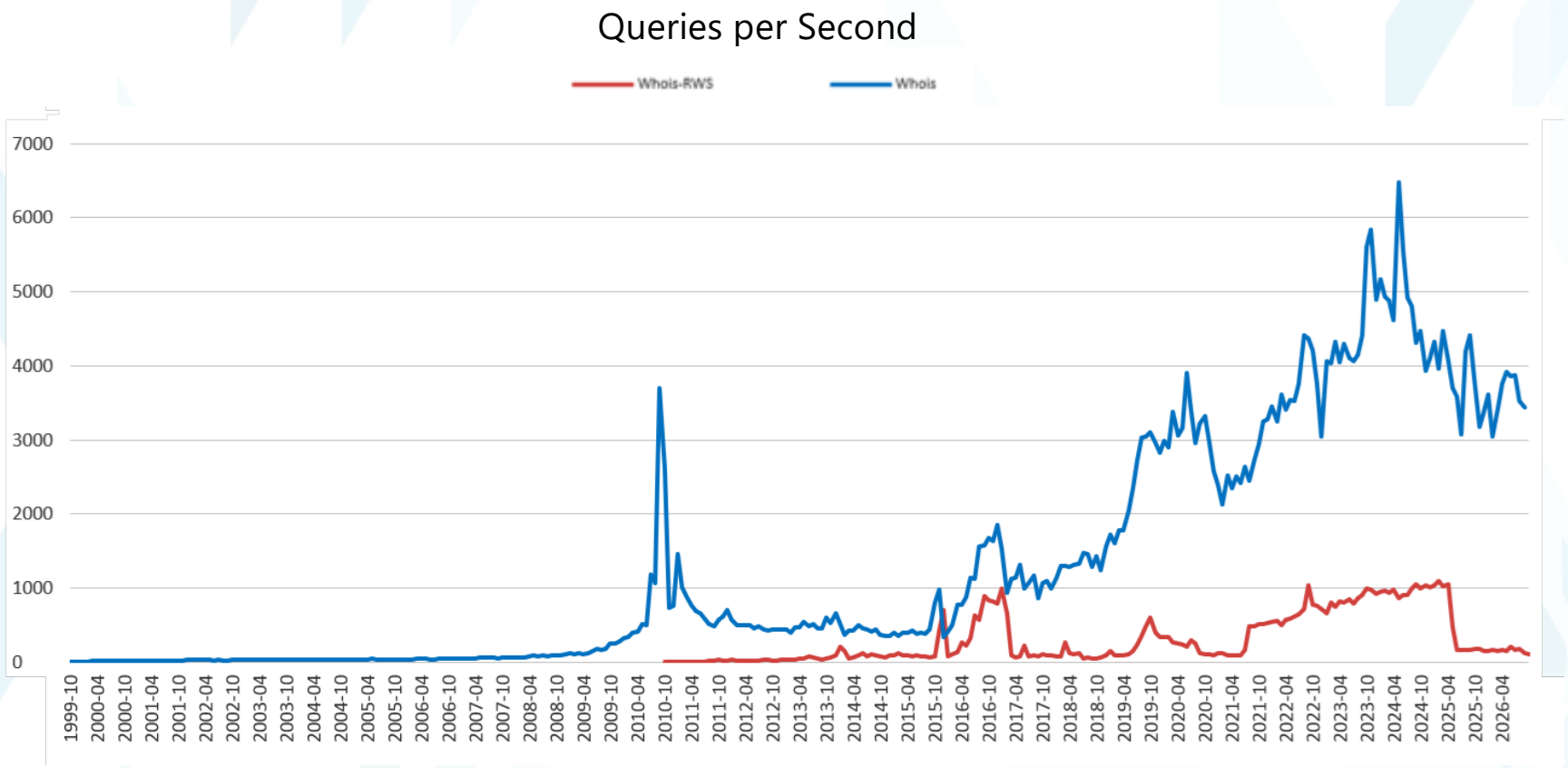


*Taken from Andy Newton's "**The current state of RDAP"** https://www.ietf.org/blog/current-state-of-rdap/ 19 Feb 2026*

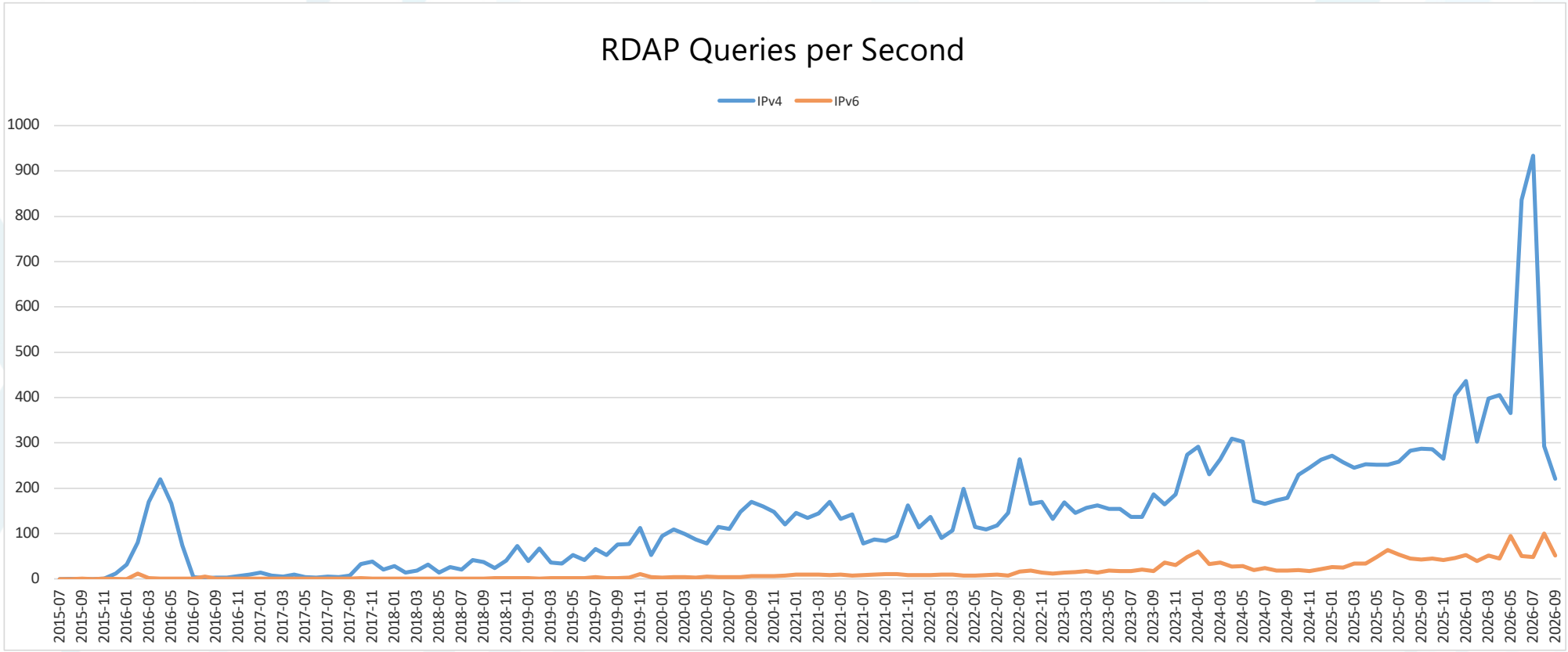
ARIN Whois Usage



ARIN Whois and Whois-RWS Usage



ARIN RDAP Usage



What Happened

- ARIN Consultation on the potential retirement of some of ARIN's directory services published 14 Aug 2026, and closed 14 Sept 2026.
- Much discussion ensued on both the NANOG and arin-consult lists.
- Response posted 21 Oct 2026 on arin-announce.

Key Takeaways from Consultation

- RWhois: Will retire as planned.
- Whois-RWS: Retire after two milestones are complete.
  - Ensure that all functionality in Whois-RWS is reflected in RDAP.
  - Replace the Whois-RWS UI (whois.arin.net) has been expended to include publication of a beta RDAP advanced search tool to allow for more community input on this new service.
- WHOIS: Not ready to retire. Will remain in service and revisit in the future where:
  - Community-defined RDAP usage milestones are met.
  - Revisit retirement in a future consultation with robust outreach and education programs.


ARIN
Thank You