IETF 123 RegExt Session, Madrid, Jul. 22, 2025

RDAP Extension for Verified Contact Information

(draft-loffredo-regext-rdap-verified-contacts)

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What is it?

- Allows verification status information to be included in the RDAP response for contact fields such as:
  - email addresses;
  - phone numbers;
  - postal addresses;
  - others.

Why?

- RDAP responses do not include explicit information about whether contact information has been verified.
- This extension is useful in contexts where contact verification may be legally required or strongly recommended.
  - It can support compliance with Article 28 of the EU NIS2 Directive, which mandates that TLD registries and registrars verify the accuracy of registration data.
- The ultimate goal is to improve data quality and trustworthiness of RDAP responses

How?

```
{
  "objectClassName": "entity",
  "handle": "ABC123-EXAMPLE",
  "rdapConformance": [
    "rdap_level_0",
    "verifiedContacts"
  ],
  ...
  "verifiedContacts_data": {
    "email": {
      "verificationDate": "2025-03-15T12:00:00Z",
      "method": "emailVerification"
    }
  ...
  }
}
```

- A new top-level object member named "*verifiedContacts_data*" added to the entity objects.
- The object keys are contact details (e.g., keys used in draft-ietf-regext-rdap-jscontact: `"email"`, `"voice"`, `"addr"`)
- Each value is an object containing:

1. `verificationDate`: (REQUIRED) A string with the date and time of verification
2. `method`: (OPTIONAL) A string indicating the verification method

- A server MAY use the `"all"` key to signal that all data has been verified.

Some possible verification methods

emailVerification	Sending a confirmation link to the specified email address and requiring user interaction (e.g., clicking the link) to confirm ownership
smsToken	Sending a one-time token (OTP) via SMS to the provided phone number and requiring the user to submit the token to confirm ownership.
manualReview	Manual review of contact data by a human operator (e.g., calling the phone number, making a live video call, inspecting submitted documentation)
eidValidation	Validation of contact data using a digital identity service, either before or after registration (e.g., eIDAS-compliant identity providers).
addressVerification	Verification of the postal address using a geolocation or address validation service (e.g., Google Maps API, OpenStreetMap, postal databases).
crossValidation	Cross-checking of contact details (e.g., name, VAT number, postal address) against trusted third-party repositories (e.g., EU VIES).
thirdPartyAssertion	Relying on a trusted third party (e.g., registrar, CSP, certification authority) to assert that contact data has been verified externally.

Next steps

- Add the verification methods to the RDAP JSON Values registry
- Add the support for semantic versioning
- Find out if the WG finds it interesting.
- Request WG adoption ahead of IETF 125 in Shenzhen.

For discussion

- Would it be helpful to include information about a verification performed by a third-party service ?
  - a `"verifier"` member identifying the verifier;
  - a `"verificationId"` member identifying the verification;
  - a `"links"` member providing additional information about the verification performed.

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The list below outlines possible areas of discussion, though it is not comprehensive:

- Operational impacts of provisioning protocol migration
- Examples of how AI is being used in the registration ecosystem
- RDAP implementation experience
- Implementation of NIS2 Directive
- Best practices for DNSSEC Key management
- DNS abuse (Global Signal Exchange, etc.)
- Topics relevant to EPP, RPKI & other protocols relevant to Registration Systems (Domain Connect protocol, etc.)
- Digital Identity topics (eIDAS, etc.)

Thanks for the attention!

Q & A