Network Working Group
Internet-Draft
Intended status: Standards Track
Expires: 27 August 2026

M. Loffredo
M. Martinelli
IIT-CNR/Registro.it
J.G. Gould
VeriSign, Inc.
P. Kowalik
DENIC eG

23 February 2026

Registration Data Access Protocol (RDAP) Extension for Verified Contact Information

draft-loffredo-regext-rdap-verified-contacts-03

Abstract

This document describes an extension to the Registration Data Access Protocol (RDAP) that allows the inclusion of verification status information for contact fields such as email addresses and phone numbers. The goal is to improve data quality and trustworthiness of RDAP responses by indicating which pieces of contact data have been verified and how.

Status of This Memo

This Internet-Draft is submitted in full conformance with the provisions of BCP 78 and BCP 79.

Internet-Drafts are working documents of the Internet Engineering Task Force (IETF). Note that other groups may also distribute working documents as Internet-Drafts. The list of current Internet-Drafts is at https://datatracker.ietf.org/drafts/current/.

Internet-Drafts are draft documents valid for a maximum of six months and may be updated, replaced, or obsoleted by other documents at any time. It is inappropriate to use Internet-Drafts as reference material or to cite them other than as "work in progress."

This Internet-Draft will expire on 27 August 2026.

Copyright Notice

Table of Contents

1. Introduction

The Registration Data Access Protocol (RDAP) provides access to registration data for domain names, IP addresses, and autonomous system numbers. However, RDAP responses do not currently include explicit information about whether contact information such as email addresses or phone numbers has been verified.

This document defines a simple extension that enables RDAP providers to include verification status for contact fields. This is useful in contexts where contact verification may be legally required or strongly recommended.

In particular, Article 28 of Directive (EU) 2022/2555 ([NIS2]) requires top-level domain (TLD) name registries and domain name registrars to collect and maintain accurate and complete domain name registration data. Assuring accuracy and completeness of registration data may involve verification of contact details and, in some cases, publishing their verification status—either in a publicly

accessible RDAP service or in a closed RDAP service requiring prior authorization for legitimate access seekers or authorities. The extension defined in this document can support compliance with these obligations by enabling the inclusion of verification status for contact fields in RDAP responses in a standardized way.

2. Conventions Used in This Document

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "NOT RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in BCP 14 [RFC2119] [RFC8174] when, and only when, they appear in all capitals, as shown here.

3. RDAP Conformance

Servers implementing this extension MUST include the string "verifiedContacts" in the "rdapConformance" ([RFC9083]) array of all relevant RDAP responses. The registration of the "verifiedContacts" extension identifier is described in Section 8.

4. JSON Structure

The verification information is conveyed via a new top-level object member named "verifiedContacts_data" within the entity objects.

```
{
  "objectClassName": "entity",
  "handle": "ABC123-EXAMPLE",
  "rdapConformance": ["rdap_level_0", "verifiedContacts"],
  ...
  "verifiedContacts_data":
  {
    [
      "claims": ["name", "address"],
      "verificationDate": "2025-03-15T12:00:00Z",
      "trustFramework": "eidas",
      "verifierId": "Registro.it",
      "verificationId": "verif-20250315-0001",
      "evidence": "idcard",
      "method": "auth"
    ],
    [
      "claims": ["email"],
      "verificationDate": "2025-03-10T09:30:00Z",
      "trustFramework": "registro.it",
      "verifierId": "Registro.it",
      "verificationId": "verif-20250310-0001",
      "method": "reachability",
      "remarks" :
        [
          {
            "description" :
            [
              "E-mail verification embedded
              in onboarding process."
            ]
          }
        ]
    ]
    ...
  }
}
```

Figure 1: Entity object including the "verifiedContacts_data" member

5. verifiedContacts_data Structure

The "verifiedContacts_data" member is an array if objects containing:

"verificationDate": (OPTIONAL) A string with the date and time of verification, represented as an [RFC3339] date-time profile format.

"verifierId": (OPTIONAL) Verifier identifier, that is a server unique number or a delimited string using a '-' as a separator character to support a regional or globally unique identifier. The minimum length is 1 character and the maximum length is 40 characters. The set of verifiers and verifier identifiers is up to server policy.

"verifierName": (OPTIONAL) Verifier name of the verifier that is a simple character string, with a minimum length of 1 character and a maximum length of 40 characters. The set of verifiers and verifier identifiers is up to server policy.

"verificationId": (OPTIONAL) Verification identifier that unambigously identifies the verification performed by the verification provider.

"claims": (OPTIONAL) An array of strings indicating which parts of the data has been verified in a given process.

The list of allowed values is specified by entries of a type "verified contact claim" in "RDAP JSON Values Registry" and is extendible.

This specification defines the following set of values based on [OpenID]:

"email": E-mail address.

"phone number": Voice phone number.

"fax": Fax phone number.

"address": Address.

"name": Entities full name.

"given name": Given name or first name of the entity.

"family name": Surname or last name of the entity.

"birthdate": Date of birth.

"trustFramework": (OPTIONAL) A string determining the trust framework governing the identity verification process.

The list of allowed values is specified by entries of a type "verified contact trust framework" in "RDAP JSON Values Registry" and is extendible.

If the verification is conducted according to the policy framework of server operator, this value SHOULD be specific to this operator unless external policy has been adopted.

This specification defines the following set of values:

"eidas": The verification has been conducted in accordance with the EU regulation No 910/2014 (eIDAS).

"private": The verification has been conducted in accordance private policy framework of server operator.

"method": (OPTIONAL) A string indicating a verification method.

The list of allowed values is specified by entries of a type "verified contact method" in "RDAP JSON Values Registry" and is extendible.

This specification defines the following set of values, based on Check Methods defined in [IDA-Predefined-Values] referred from [IDA-verified-claims]:

"vpip": Validation that physical evidence is genuine through inspection of its physical properties in person.

"vpiruv": Validation that physical evidence is genuine through inspection of its physical properties in person including its optical characteristics under non-visible light.

"vri": Validation that physical evidence is genuine through the inspection of an image taken remotely under visible light.

"vdig": Validation that digital/electronic evidence is genuine by the inspection of its properties and content.

"vcrypt": Validation the cryptographic security features of the evidence are intact and correct.

"data": Found an existing electronic record that matches the claims made by the user.

"auth": Verifying the user is the owner of the claims by use of an electronic authentication process that is linked to the owner of the claims.

"token": Verifying the user is the owner of the claims by use of

an electronic authentication token such as hardware token or smartcard that is linked and issued to the owner of the claims.

"kbv": Verifying the user is the owner of the claims by knowledge based challenges/questions that only the owner of the claims should know how to answer.

"pvp": Physical verification in person by a qualified/authorised person, the comparison of a physical characteristic (such as face) of the user with a known image/template of the owner of the claims.

"pvr": Physical verification by a qualified/authorised person when the user is remote, the comparison of a physical characteristic (such as face) from an image or video of the user with a known image/template of the owner of the claims.

"bvp": Biometric verification by an automated system with the user physically present to the system and the verifier, the use of a biometric modality (such as face) to match the user with a known template of the owner of the claims.

"bvr": Biometric verification by an automated system where the user and capture device is remote to the verifier, the use of a biometric modality (such as face) to match the user with a known template of the owner of the claims.

"reachability": Verification conducted in a way that confirms the reliability of the chosen communication method, requiring the recipient to actively acknowledge receipt through an appropriate confirmation action, such as signing a confirmation of receipt, entering a code or clicking a link

"evidence": (OPTIONAL) A string indicating an evidence used in the verification.

The list of allowed values is specified by entries of a type "verified contact evidence" in "RDAP JSON Values Registry" and is extendible.

This specification defines the following set of values, based on Documents, Electronic records and Vouches defined in [IDA-Predefined-Values] referred from [IDA-verified-claims]:

"idcard": An identity document issued by a country’s government for the purpose of identifying a citizen.

"passport": A passport is a travel document, usually issued by a country's government, that certifies the identity and nationality of its holder primarily for the purpose of international travel.

"residence permit": Official document permitting an individual to reside within a particular jurisdiction.

"bank statement": Bank statement from a recognized banking institution.

"utility statement": Statement from a recognized utility provider.

"tax statement": Statement from a country's tax authority.

"birth certificate": Official document certifying the circumstances of a birth.

"birth register": A record from an official register of births.

"population register": A record from an official population register.

"written attestation": A written/printed statement/letter from a recognised person or authority regarding the identity of the entity.

"digital attestation": A statement from a recognised person or authority regarding the identity of the entiry that was made and stored electronically.

"email ver transaction log": A digital transaction log of an appropriate confirmation action of email verification, such as entering a code or clicking a link.

"postal ver transaction log": A digital transaction log of an appropriate confirmation action of postal verification, such as confirmation of receipt, entering a code or clicking a link.

"address database": Information from a reliable address database.

"remarks": (OPTIONAL) property, which is an array of remarks (see Section 4.3 of [RFC9083]).

"extension": (OPTIONAL) property, which is a map of objects.

The list of allowed values is specified by entries of a type "verified contact extension" in "RDAP JSON Values Registry" and is extendible.

This specification does not specify any entries to this registry leaving it open for other specificiations.

6. Combining Evidence and Method

In most common cases a verification of data consists of comparison against some authoritative source or document (evidence) using one of the allowed methods (method) within a defined trust framework. The same evidence may be verified using different methods, just as the same method may be applied to different evidences. Therefore, a description of the verification process typically specifies the values in a combination.

Real life examples of such combinations:

* Email verification

```
{
  ...
  "verifiedContacts_data":
  {
    [
      "claims": ["email"],
      "method": "reachability",
      "evidence": "email ver transaction log",
      "remarks" :
        [
          {
            "description" :
            [
              "Sending a confirmation link to
              the specified email address and
              requiring user interaction (e.g.,
              clicking the link) to confirm
              ownership."
            ]
          }
        ]
    ]
    ...
  }
}
```

* Address Verification

```
{
  ...
  "verifiedContacts_data":
  {
    [
      "claims": ["address"],
      "method": "data",
      "evidence": "address database",
      "remarks" :
        [
          {
            "description" :
            [
              "Verification of the postal address using
                a geolocation or address validation service
                (e.g., Google Maps API, OpenStreetMap,
                postal databases)."
            ]
          }
        ]
    ]
    ...
  }
}
```

* Manual review

```
{
  ...
  "verifiedContacts_data":
  {
    [
      "claims": ["name", "address"],
      "method": "pvr",
      "evidence": "idcard",
      "remarks" :
        [
          {
            "description" :
            [
              "Manual review of contact data by a human operator
                (e.g., calling the phone number, making a live
                video call, inspecting submitted documentation)."
            ]
          }
        ]
    ]
    ...
  }
}
```

7. Extension Version Identifier

This extension supports the following versioning types as defined in [I-D.ietf-regext-rdap-versioning]:

* Opaque Versioning: The Opaque Extension Version Identifier is "verifiedContacts".

* Semantic Versioning: The Semantic Extension Version Identifier is "verifiedContacts-0.3". The Semantic Extension Version Identifier is "verifiedContacts-0.2" for draft-loffredo-regext-rdap-verified-contacts-02 and "verifiedContacts-0.1" for draft-loffredo-regext-rdap-verified-contacts-01. When there are interface changes to the extension, the Semantic Extension Version Identifier will be incremented, which may not match the draft version number. When the draft becomes a working group document and passes Working Group Last Call (WGLC), the Semantic Extension Version Identifier will be changed to "verifiedContacts-1.0".

8. IANA Considerations

8.1. RDAP Extensions Registry

IANA is requested to register the following value in the RDAP Extensions Registry:

Extension identifier: verifiedContacts
Registry operator: Any
Published specification: This document.
Contact: IETF <iesg@ietf.org>
Intended usage: This extension identifies RDAP extension for verified contact information.

8.2. RDAP JSON Values Registry

Section 10.2 of [RFC9083] defines the RDAP JSON Values Registry with pre-defined Type field values and the use of the "Expert Review" policy defined in [RFC8126]. This specification defines new RDAP JSON Values Registry Type field values that can be used to register pre-defined "verified contact claim", "verified contact method", "verified contact trust framework", "verified contact evidence" and "verified contact extension" values. IANA is requested to update the RDAP JSON Values Registry to accept these additional type field values as follows:

"verified contact claim": Verified contact claim being registered. The registered "verified contact claim" is referenced using a sub-field of the verified contacts "verifiedContacts_data" field.

"verified contact method": Verified contact method being registered. The "verified contact method" is referenced using the "method" field of the verified contacts detail (e.g., "email", "voice", "fax", "addr") field.

"verified contact evidence": Verified contact evidence being registered. The "verified contact evidence" is referenced using a sub-field of the verified contacts "verifiedContacts_data" field.

"verified contact trust framework": Verified contact trust framework registered. The "verified contact trust framework" is referenced using a sub-field of the verified contacts "verifiedContacts_data" field.

"verified contact extension": Verified contact extension field being registered. The "verified contact extension" is referenced using a sub-field of the verified contacts "verifiedContacts_data" field.

IANA is requested to register the following in the RDAP JSON Values Registry, described in [RFC9083]:

Value: email

Type: verified contact claim

Description: E-mail address.

Registrant Name: IETF

Registrant Contact Information: iesg@ietf.org

Value: phone number

Type: verified contact claim

Description: Voice phone number.

Registrant Name: IETF

Registrant Contact Information: iesg@ietf.org

Value: fax

Type: verified contact claim

Description: Fax phone number.

Registrant Name: IETF

Registrant Contact Information: iesg@ietf.org

Value: address

Type: verified contact claim

Description: Address.

Registrant Name: IETF

Registrant Contact Information: iesg@ietf.org

Value: name

Type: verified contact claim

Description: Entities full name.

Registrant Name: IETF

Registrant Contact Information: iesg@ietf.org

Value: given name

Type: verified contact claim

Description: Given name or first name of the entity.

Registrant Name: IETF

Registrant Contact Information: iesg@ietf.org

Value: family name

Type: verified contact claim

Description: Surname or last name of the entity.

Registrant Name: IETF

Registrant Contact Information: iesg@ietf.org

Value: birthdate

Type: verified contact claim

Description: Date of birth.

Registrant Name: IETF

Registrant Contact Information: iesg@ietf.org

Value: vpip

Type: verified contact method

Description: Validation that physical evidence is genuine through inspection of its physical properties in person.

Registrant Name: IETF

Registrant Contact Information: iesg@ietf.org

Value: vpiruv

Type: verified contact method

Description: Validation that physical evidence is genuine through inspection of its physical properties in person including its optical characteristics under non-visible light.

Registrant Name: IETF

Registrant Contact Information: iesg@ietf.org

Value: vri

Type: verified contact method

Description: Validation that physical evidence is genuine through the inspection of an image taken remotely under visible light.

Registrant Name: IETF

Registrant Contact Information: iesg@ietf.org

Value: vdig

Type: verified contact method

Description: Validation that digital/electronic evidence is genuine by the inspection of its properties and content.

Registrant Name: IETF

Registrant Contact Information: iesg@ietf.org

Value: vcrypt

Type: verified contact method

Description: Validation the cryptographic security features of the evidence are intact and correct.

Registrant Name: IETF

Registrant Contact Information: iesg@ietf.org

Value: data

Type: verified contact method

Description: Found an existing electronic record that matches the claims made by the user.

Registrant Name: IETF

Registrant Contact Information: iesg@ietf.org

Value: auth

Type: verified contact method

Description: Verifying the user is the owner of the claims by use of an electronic authentication process that is linked to the owner of the claims.

Registrant Name: IETF

Registrant Contact Information: iesg@ietf.org

Value: token

Type: verified contact method

Description: Verifying the user is the owner of the claims by use of an electronic authentication token such as hardware token or smartcard that is linked and issued to the owner of the claims.

Registrant Name: IETF

Registrant Contact Information: iesg@ietf.org

Value: kbv

Type: verified contact method

Description: Verifying the user is the owner of the claims by knowledge based challenges/questions that only the owner of the claims should know how to answer.

Registrant Name: IETF

Registrant Contact Information: iesg@ietf.org

Value: pvp

Type: verified contact method

Description: Physical verification in person by a qualified/ authorised person, the comparison of a physical characteristic (such as face) of the user with a known image/template of the owner of the claims.

Registrant Name: IETF

Registrant Contact Information: iesg@ietf.org

Value: pvr

Type: verified contact method

Description: Physical verification by a qualified/authorised person when the user is remote, the comparison of a physical characteristic (such as face) from an image or video of the user with a known image/template of the owner of the claims.

Registrant Name: IETF

Registrant Contact Information: iesg@ietf.org

Value: bvp

Type: verified contact method

Description: Biometric verification by an automated system with the user physically present to the system and the verifier, the use of a biometric modality (such as face) to match the user with a known template of the owner of the claims.

Registrant Name: IETF

Registrant Contact Information: iesg@ietf.org

Value: bvr

Type: verified contact method

Description: Biometric verification by an automated system where the user and capture device is remote to the verifier, the use of a biometric modality (such as face) to match the user with a known template of the owner of the claims.

Registrant Name: IETF

Registrant Contact Information: iesg@ietf.org

Value: reachability

Type: verified contact method

Description: Verification conducted in a way that confirms the reliability of the chosen communication method, requiring the recipient to actively acknowledge receipt through an appropriate confirmation action, such as signing a confirmation of receipt, entering a code or clicking a link.

Registrant Name: IETF

Registrant Contact Information: iesg@ietf.org

Value: idcard

Type: verified contact evidence

Description: An identity document issued by a country's government for the purpose of identifying a citizen.

Registrant Name: IETF

Registrant Contact Information: iesg@ietf.org

Value: passport

Type: verified contact evidence

Description: A passport is a travel document, usually issued by a country's government, that certifies the identity and nationality of its holder primarily for the purpose of international travel.

Registrant Name: IETF

Registrant Contact Information: iesg@ietf.org

Value: residence permit

Type: verified contact evidence

Description: Official document permitting an individual to reside within a particular jurisdiction.

Registrant Name: IETF

Registrant Contact Information: iesg@ietf.org

Value: bank statement

Type: verified contact evidence

Description: Bank statement from a recognized banking institution.

Registrant Name: IETF

Registrant Contact Information: iesg@ietf.org

Value: utility statement

Type: verified contact evidence

Description: Statement from a recognized utility provider.

Registrant Name: IETF

Registrant Contact Information: iesg@ietf.org

Value: tax statement

Type: verified contact evidence

Description: Statement from a country’s tax authority.

Registrant Name: IETF

Registrant Contact Information: iesg@ietf.org

Value: birth certificate

Type: verified contact evidence

Description: Official document certifying the circumstances of a birth.

Registrant Name: IETF

Registrant Contact Information: iesg@ietf.org

Value: birth register

Type: verified contact evidence

Description: A record from an official register of births.

Registrant Name: IETF

Registrant Contact Information: iesg@ietf.org

Value: population register

Type: verified contact evidence

Description: A record from an official population register.

Registrant Name: IETF

Registrant Contact Information: iesg@ietf.org

Value: written attestation

Type: verified contact evidence

Description: A written/printed statement/letter from a recognised person or authority regarding the identity of the entity.

Registrant Name: IETF

Registrant Contact Information: iesg@ietf.org

Value: digital attestation

Type: verified contact evidence

Description: A statement from a recognised person or authority regarding the identity of the entiry that was made and stored electronically.

Registrant Name: IETF

Registrant Contact Information: iesg@ietf.org

Value: email ver transaction log

Type: verified contact evidence

Description: A digital transaction log of an appropriate confirmation action of email verification, such as entering a code or clicking a link.

Registrant Name: IETF

Registrant Contact Information: iesg@ietf.org

Value: postal ver transaction log

Type: verified contact evidence

Description: A digital transaction log of an appropriate confirmation action of postal verification, such as confirmation of receipt, entering a code or clicking a link.

Registrant Name: IETF

Registrant Contact Information: iesg@ietf.org

Value: address database

Type: verified contact evidence

Description: Information from a reliable address database.

Registrant Name: IETF

Registrant Contact Information: iesg@ietf.org

Value: eidas

Type: verified contact trust framework

Description: The verification has been conducted in accordance with the EU regulation No 910/2014 (eIDAS).

Registrant Name: IETF

Registrant Contact Information: iesg@ietf.org

Value: private

Type: verified contact trust framework

Description: The verification has been conducted in accordance

private policy framework of server operator.

Registrant Name: IETF

Registrant Contact Information: iesg@ietf.org

9. Security Considerations

Contact verification data may have privacy implications. Servers MUST ensure that disclosure of this information complies with applicable data protection laws and policies.

10. Acknowledgements

The authors wish to thank the following persons for their feedback and suggestions: Scott Hollenbeck.

11. References

11.1. Normative References

[I-D.ietf-regext-rdap-versioning]
Gould, J., Keathley, D., and M. Loffredo, "Versioning in the Registration Data Access Protocol (RDAP)", Work in Progress, Internet-Draft, draft-ietf-regext-rdap-versioning-04, 11 December 2025, <https://datatracker.ietf.org/doc/html/draft-ietf-regext-rdap-versioning-04>.

[RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, DOI 10.17487/RFC2119, March 1997, <https://www.rfc-editor.org/info/rfc2119>.

[RFC3339] Klyne, G. and C. Newman, "Date and Time on the Internet: Timestamps", RFC 3339, DOI 10.17487/RFC3339, July 2002, <https://www.rfc-editor.org/info/rfc3339>.

[RFC8126] Cotton, M., Leiba, B., and T. Narten, "Guidelines for Writing an IANA Considerations Section in RFCs", BCP 26, RFC 8126, DOI 10.17487/RFC8126, June 2017, <https://www.rfc-editor.org/info/rfc8126>.

[RFC8174] Leiba, B., "Ambiguity of Uppercase vs Lowercase in RFC 2119 Key Words", BCP 14, RFC 8174, DOI 10.17487/RFC8174, May 2017, <https://www.rfc-editor.org/info/rfc8174>.

[RFC9083] Hollenbeck, S. and A. Newton, "JSON Responses for the Registration Data Access Protocol (RDAP)", STD 95, RFC 9083, DOI 10.17487/RFC9083, June 2021, <https://www.rfc-editor.org/info/rfc9083>.

11.2. Informative References

[IDA-Predefined-Values]
OpenID Foundation, "Overview page for predefined values", 2021, <https://openid.net/wg/ekyc-ida/identifiers/>.

[IDA-verified-claims]
Lodderstedt, T., Fett, D., Haine, M., Pulido, A., Lehmann, K., and K. Koiwai, "OpenID Identity Assurance Schema Definition", 9 August 2023, <https://openid.net/specs/openid-ida-verified-claims-1_0.html>.

[NIS2] European Parliament and Council, "Directive (EU) 2022/2555 of the European Parliament and of the Council of 14 December 2022 on measures for a high common level of cybersecurity across the Union, amending Regulation (EU) No 910/2014 and Directive (EU) 2018/1972, and repealing Directive (EU) 2016/1148 (NIS 2 Directive)", December 2022, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02022L2555-20221227>.

[OpenID] Sakimura, N., Bradley, J., Jones, M., de Medeiros, B., and C. Mortimore, "OpenID Connect Core 1.0 incorporating errata set 1", 8 November 2014, <https://openid.net/specs/openid-connect-core-1_0.html>.

Appendix A. Change History

A.1. Change from 00 to 01

1. Made The "verifiedContacts_data" keys consistent with those defined in draft-ietf-regext-rdap-jscontact.
2. Further specified the verification methods and changed their format to CamelCase.

A.2. Change from 01 to 02

1. Added definition of the "verified contact detail" and "verified contact method" RDAP JSON Values types and added a set of RDAP JSON Values registrations.
2. Updated the "method" values to be lowercase with a space word separator to match the requirement for registered RDAP JSON Values.

3. Added support for semantic versioning using the versioning extension and included the semantic versions for the prior draft versions.
4. Added the "all", "email", "voice", "fax", and "addr" verified contact detail registration.
5. Added the "verifierId" optional field to reference who performed the verification.
6. Added the "verificationId" optional field to reference the unique verification performed by the verification provider.
7. Added the "trustFramework" optional field to reference the policy framework of the verification
8. Make verification date optional
9. Clarified that the extension can be used in both public and restricted RDAP services
10. Make possible to have multiple verification objects.
11. Add verification evidence as optional field.
12. Change reference to verified data as an array instead of object key, to enable multiple verifications referring to the same data element and avoid same verification object repeated if multiple data elements were verified.

A.3. Change from 02 to 03

1. Rename "verified contact detail" to "verified contact claim" to match terminology with [OpenID].
2. Added "verified contact evidence", "verified contact trust framework" to IANA section.
3. Synchronised "verified contact claim" IANA section with Section 5.
4. Changed "verified contact method" according to [IDA-verified-claims]
5. Removed "all" claim as it is ambigous if the whole set of claims in the registration system is unknown.
6. Refactor introduction to reflect better NIS-2 requirements.
7. Removed ambiguous "all" claim.
8. Added "extension" and "remarks" fields.
9. Added "email ver transaction log" and "postal ver transaction log" evidence.
10. Added section Combining Evidence and Method as well as needed values to the lists.

Authors' Addresses

Mario Loffredo
IIT-CNR/Registro.it
Via Moruzzi,1
56124 Pisa
Italy

Email: mario.loffredo@iit.cnr.it
URI: http://www.iit.cnr.it

Maurizio Martinelli
IIT-CNR/Registro.it
Via Moruzzi,1
56124 Pisa
Italy
Email: maurizio.martinelli@iit.cnr.it
URI: http://www.iit.cnr.it

James Gould
VeriSign, Inc.
12061 Bluemont Way
Reston, VA 20190
United States of America
Email: jgould@verisign.com
URI: http://www.verisigninc.com

P Kowalik
DENIC eG
Theodor-Stern-Kai 1
Frankfurt am Main
Germany
Email: pawel.kowalik@denic.de
URI: https://denic.de