

Definition of Evidence Type for W3C Verifiable Credentials Data Model



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Abstract

This document specifies an Evidence property for individuals based on the OIDF OpenID Connect for Identity Assurance specification [2].

Status of This Document

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1. Introduction

In banking and other applications where the authentication of clients is required to a specific level of confidence, level of assurance or to comply with any other verification or validation requirements, then the Verifier may need to know various metadata about how the credentials were bound to the subject through verification and validation processes. The eKYC & Identity Assurance working group of the OpenID Foundation has a draft specification [2] that describes this property, and this specification describes how part of that can be used as a type of Evidence property for the W3C Verifiable Credentials Data Model [1].

2. Details

The VCDM Evidence property requires a globally unique type to be defined, which must be a URI. What properties follow the type are specific to this type.

Type

The type that is be used to refer to this definition MUST be ["https://openid.bitbucket.io/ekyc/openid-connect-4-identity-assurance.html#name-verification-element"](https://openid.bitbucket.io/ekyc/openid-connect-4-identity-assurance.html#name-verification-element)

An evidence property of this type MUST have a verification property, as defined in the OpenID Connect for Identity Assurance specification [2].

A non-normative example of this Evidence property follows:

```
...
{
  "evidence": [{
    "type":
["https://openid.bitbucket.io/ekyc/openid-connect-4-identity-assurance.html#name-verification-element"],
    "verification": {
      "trust_framework": "uk_tfida",
```

```

"scheme": "idconnect",
"assurance_level": "idconnect_kyc_partial",
"assurance_process": {
  "policy": "GPG_45",
  "scheme_policy": "idconnect_kyc",
  "procedure": "L1B",
  "scheme_procedure": "dInI_sm",
  "gpg45_confidence_level": "low",
  "assurance_details": [{
    "assurance_type": "evidence_validation",
    "assurance_classification": "3",
    "evidence_ref": [{
      "txn": "WED-85762937582385444",
      "evidence_classification": "3"
    }]
  },
  {
    "assurance_type": "address_validation",
    "assurance_classification": "2",
    "evidence_ref": [{
      "txn": "idv-7567445464543",
      "evidence_classification": "3"
    }]
  },
  {
    "assurance_type": "verification",
    "assurance_classification": "3",
    "evidence_ref": [{
      "txn": "BIO-8576293758238555"
    }]
  }
]
},
"time": "2021-05-11T14:29-01:00",
"verification_process": "7675D80F-57E0-AB14-9543-26B41FC22",
"evidence": [{
  "type": "document",
  "check_details": [{
    "check_method": "vri",
    "sub_check_method": "vri",
    "organization": "wedocu",
    "txn": "WED-85762937582385444"
  },
  {
    "check_method": "bvr",
    "sub_check_method": "bvr",
    "organization": "biotrick",
    "txn": "BIO-8576293758238555"
  }
]
}

```

```

    },
    ],
    "time": "2021-04-09T14:12Z",
    "document_details": {
        "type": "driving_permit",
        "document_number":
"MORGA753116SM9IJ35",
        "date_of_issuance": "2021-01-01",
        "date_of_expiry": "2030-12-31",
        "attachments": [{
            "desc": "image_of_document",
            "content_type": "image/png",
            "content":
"Wkd0bWFtVnlhWFI2Wlc0Mk16VER2RFUyY0RRMWFUbDBNelJ1TIRjd31dzdaM1pTQXJa
WGRsTXpNZ2RETmxDZwo="
        }],
        "issuer": {
            "name": "DVLA",
            "country_code": "GBR"
        }
    },
    },
    "claims": {
        "given_name": "Sarah",
        "family_name": "Meredyth",
        "birthdate": "1976-03-11",
        "place_of_birth": {
            "country": "UK"
        },
        },
        "address": {
            "locality": "Edinburgh",
            "postal_code": "EH1 9GP",
            "country": "UK",
            "street_address": "122 Burns Crescent"
        }
    },
    },
    {
        "type": "electronic_record",
        "check_details": [{
            "check_method": "data",
            "sub_check_method": "cra_record_primary",
            "organization": "theIdP",
            "txn": "idv-7567445464543"
        }],
        "time": "2021-04-09T14:12Z",
        "record": {
            "type": "cra_account",
            "authoritative_source": "equiexpunior",

```

```

"gg54y4y5y5433443",
    "authoritative_source_reference":
    "created_at": "2021-01-01",
    "date_of_expiry": "2030-12-31",
    "date_last_updated": "2022-01-31",
    "outcome_of_check": "positive",
    "source": {
        "name": "idvalidation4u",
        "address": {
            "street_address": "300 Bath
Street",
            "postal_code": "G2 4LH",
            "country_code": "SCO"
        }
    },
    "claims": {
        "given_name": "Sarah",
        "family_name": "Appleby",
        "birthdate": "1976-03-11",
        "address": {
            "locality": "Leeds",
            "postal_code": "LS12 6GT",
            "country": "UK",
            "street_address": "45 White Rose Road"
        },
        "start_date": "01-01-2020",
        "end_date": "31-12-2020"
    }
}
]
}
}
}
...

```

3. References

- [1] W3C Verifiable Credentials Data Model Recommendation v1.1. Available at <https://www.w3.org/TR/vc-data-model/>
- [2] OIDF OpenID Connect for Identity Assurance 1.0. Available at https://openid.net/specs/openid-connect-4-identity-assurance-1_0.html