

Draft high level guidance for use of Open ID Connect eKYC and Identity Assurance Profile

1. Background

The aim of this draft guidance document is to support the interoperability of digital identity and attribute solutions covered by the [UK digital identity and attributes trust framework alpha](#).

This guidance can be used for a number of identity verification and attribute validation use cases and is of particular relevance to the delivery of services in the public and private sector. The guidance has been developed in alignment with the [eKYC & Identity Assurance working group](#) at the Open Identity Foundation.

We are inviting interested parties to submit feedback on this initial draft to digitalidentityalpha@dcms.gov.uk by 30 September.

2. Key design principles

This guidance has been designed to be aligned with and published as part of the UK Government's digital identity and attributes trust framework, where the intention is that it is recommended but not mandated for future trust framework participants. It has a particular focus on describing assured identity attributes as defined in [Good Practice Guide 45](#), which is incorporated into the trust framework.

It builds on and reuses existing work taking place across industry, for example by the Open Identity Foundation, Open Banking Implementation Entity, Open Identity Exchange, TISA, and FIDO Alliance. It will also align with key regulations such as the Money Laundering Directives (MLD) and the UK General Data Protection Regulation (UK GDPR).

This is an initial draft and we are encouraging feedback from a range of interested parties from industry, academia, the public sector, civil society and international partners. We plan to have a finalised version by March 2022. Later versions will include JSON descriptions once consensus is reached on the attribute descriptions and values.

3. Scope

This draft technical guidance uses OpenID Connect and leverages the current OIDC eKYC and Identity Assurance profile.

4. Regulatory considerations

It is the responsibility of participants to consider applicable regulatory obligations and ensure that they have been appropriately met for any of the use cases they are engaging in.

5. API Specification

This guidance will use the specification that is under active development by the [OpenID foundation eKYC & IDA Working Group](#), namely, the [“OpenID for Identity Assurance” specification](#).

There is an associated specification that will add support for legal entity use cases called “OpenID for authority”.

This guidance document will:

- Be developed in collaboration trust framework engagement partners, government and regulatory stakeholders, the OpenID Foundation and other industry partners
- Consider other initiatives for secure data sharing
- Aim to support use cases for both personal and business use cases
- Support use cases that require data from multiple sources

6. Data model

In the context of the OpenID for Identity Assurance specification attributes can be used in a flexible fashion but there are a set of attributes in the specification that are going to be registered into the [IANA JSON Web Token Registry](#) to ensure consistent use.

A discussion will be required with various stakeholders and industry bodies about how interoperability can be achieved with respect to more localised attribute requirements.

The data model for this technical guidance is being developed with four attribute types:

- Natural person attributes
- Verification attributes
- Session attributes
- Legal entity attributes

Attributes

Natural person attributes

Description	Attribute name	OIDC claim
Full Name	name	Claims about end users
	given_name	Claims about end users
	middle_name	Claims about end users
	family_name	Claims about end users
Phone_number	phone_number	Claims about end users
Cell phone number	phone_number_cell	Claims about end users
	msisdn	Claims about end users
Phone number(s)	phone_numbers	Claims about end users
e-mail address	email	Claims about end users
e-mail addresses	emails	Claims about end users
Date of birth	birthdate	Claims about end users
Age	age	Claims about end users
Age verification	age_is_at_least	Claims about end users
Age verification	age_is_at_most	Claims about end users
Previous/maiden name	birth_family_name	Claims about end users
Previous names	previous_names	Claims about end users
Current Address	address	Claims about end users
Previous address(es)	previous_addresses	Claims about end users
Post code	postal_code	Claims about end users
Country code	country_code	Claims about end users
Locality	locality	Claims about end users
End-User's place of birth	place_of_birth	Claims about end users
End-User's nationalities	nationalities	Claims about end users
End-User's salutation, e.g. "Mr."	salutation	Claims about end users
End-User's title, e.g. "Dr."	title	Claims about end users

Stage name, religious name or any other type of alias/pseudonym	also_known_as	Claims about end users
Gender of end user	gender	Claims about end users

Identity assurance attributes

Trust framework and GPG 45 Attribute Description		Attribute type/value
UK Digital Identity and Attribute Trust framework	"trust_framework"	"uk_tfida"
Confidence level -	"identity_assurance_level"	"low" "medium" "high" "very_high"
Identity evidence profiles	L1A	"low#l1a"
Identity evidence profiles	L1B	"low#l1b"
Identity evidence profiles	L1C	"low#l1c"
Identity evidence profiles	L2A	"low#l2a"
Identity evidence profiles	L2B	"low#l2b"
Identity evidence profiles	L3A	"low#l2c"
Identity evidence profiles	M1A	"medium#m1a"
Identity evidence profiles	M1B	"medium#m1b"
Identity evidence profiles	M1C	"medium#m1c"
Identity evidence profiles	M1D	"medium#m1d"
Identity evidence profiles	M2A	"medium#m2a"
Identity evidence profiles	M2B	"medium#m2b"
Identity evidence profiles	M2C	"medium#m2c"
Identity evidence profiles	M3A	"medium#m3a"
Identity evidence profiles	H1A	"high#h1a"
Identity evidence profiles	H1B	"high#h1b"
Identity evidence profiles	H1C	"high#h1c"
Identity evidence profiles	H2A	"high#h2a"
Identity evidence profiles	H2B	"high#h2b"
Identity evidence profiles	H2C	"high#h2c"
Identity evidence profiles	H2D	"high#h2d"
Identity evidence profiles	H2E	"high#h2e"

Identity evidence profiles	H3A	"high#h3a"
Identity evidence profiles	V1A	"veryhigh#v1a"
Identity evidence profiles	V1B	"veryhigh#v1b"
Identity evidence profiles	V1C	"veryhigh#v1c"
Identity evidence profiles	V1D	"veryhigh#v1d"
Identity evidence profiles	V2A	"veryhigh#v2a"
Identity evidence profiles	V2B	"veryhigh#v2b"
Identity evidence profiles	V2C	"veryhigh#v2c"
Identity evidence profiles	V2D	"veryhigh#v2d"
Identity evidence profiles	V3A	"veryhigh#v3a"
Identity evidence and strength		
Passport	document_details	passport
ID cards	document_details	idcard
Northern Ireland electoral identity card	document_details	voter_id
Driving licences	document_details	driving_permit
armed forces identity card	document_details	military_id
proof of age card recognised under PASS with a unique reference number	document_details	proof_of_age_id
a Home Office travel document (convention travel document, stateless person's document, one-way document or certificate of travel)	document_details	home_office_travel_document
birth certificate	document_details	birth_certificate
adoption certificate	document_details	adoption_certificate
an older person's bus pass	document_details	bus_pass
an education certificate from a regulated and recognised educational institution (such as an NVQ, SQA, GCSE, A level or degree certificate)	document_details	education_certificate
rental agreement for a residential property	document_details	rental_agreement
purchase agreement for a residential property	document_details	purchase_agreement

proof of age card recognised under the Proof of Age Standards Scheme (PASS)	document_details	pass_card
a Freedom Pass	document_details	freedom_pass
marriage certificate	electronic_record	marriage_certificate
civil partnership certificate	electronic_record	civial_partnership_certificate
gas account	electronic_record	gas_account
electric account	electronic_record	electric_account
a firearm certificate	electronic_record	firearm_certificate
National insurance number	electronic_record	social_security_register
bank	electronic_record	bank_account
building society account	electronic_record	building_society_account
credit union account	electronic_record	credit_union_account
current account	electronic_record	current_account
student loan account	electronic_record	student_loan_account
credit account	electronic_record	credit_account
mortgage account	electronic_record	mortgage_account
loan account (including hire purchase accounts)	electronic_record	loan_account
birth register	electronic_record	birth_register
electronic identity from a notified eIDAS scheme	electronic_record	eidas_eid
Vouch	vouch	vouch
Identity evidence score	score 1	#1
Identity evidence score	score 2	#2
Identity evidence score	score 3	#3
Identity evidence score	score 4	#4
Validity		
VALID - valid	electronic_record	As above
VALID - Visible security features are genuine	validation_method	visible_security
VALID - UV security features are genuine	validation_method	uv_security
VALID Identity process -	validation_method	ir_security

IR security features are genuine		
VALID Identity process - Cryptographic features are genuine	validation_method	cryptographic_security
Validation score	score 1	#1
Validation score	score 2	#2
Validation score	score 3	#3
Validation score	score 4	#4
Verification		
Manual comp in person	verification_method	man_comp_in_person
Manual comp remote video	verification_method	man_comp_remote_video
Manual comp remote image	verification_method	man_comp_remote_image
Face biometric in person	verification_method	facial_biometric_in_person
Face biometric remote image	verification_method	facial_biometric_remote_image
Face biometric mobile app	verification_method	facial_biometric_mobile_app
Fingerprint biometric in person	verification_method	finger_biometric_in_person
Knowledge Based Verification	verification_method	kbv
Code/token to postal address via secure mail	verification_method	postal_address_secure
Code/token to postal address	verification_method	postal_address
Verification score	score 1	#1
Verification score	score 2	#2
Verification score	score 3	#3
Verification score	score 4	#4
Activity history		
account activity seen in last 3 month period	account_activity_3months	
account activity seen in last 6 month period	account_activity_6months	
account activity seen in last 12 month period	account_activity_12months	
account activity seen in last 2 year period	account_activity_2years	

account activity seen in last 3 year period	account_activity_3years	
Activity history score	score 1	#1
Activity history score	score 2	#2
Activity history score	score 3	#3
Activity history score	score 4	#4
Identity fraud type		
has had its details stolen (even if those details have not been used fraudulently yet)	TBC	TBC
has been reported as stolen	TBC	TBC
is suspected to be a synthetic identity	TBC	TBC
belongs to someone who's still alive	TBC	TBC
is known by an organisation that should have a record of that person (for example an Electoral Registration Office in a local authority)	TBC	TBC
is at a usual risk of being impersonated (for example a 'politically exposed person' like a politician or judge is at a higher than usual risk of being impersonated)	TBC	TBC
more than one authoritative source to do all the checks needed to get a score of 2	TBC	TBC
Identity fraud score	score 1	#1
Identity fraud score	score 2	#2
Identity fraud score	score 3	#3

Legal entity attributes

N.B. For legal entities scenarios we would expect a combination of legal entity and natural person attributes to be used.

Description	attribute name
Company name	organization_name
	organization_type
	trading_as
Previous company name	previous_organization_name
Registered address	registered_address
Trading address(es)	trading_addresses
Company Registration Number	registration_number
VAT Reg Number	tax_details
Legal Entity Identifier (LEI)	lei
Name of regulatory Jurisdiction under which the legal entity is registered	registered_jurisdiction
Legal status of legal entity	organization_status
Date of incorporation of the legal entity	incorporation_date
Date last accounts were submitted	last_accounts_date
Turnover	last_annual_turnover
Standard Industrial Classification (SIC) code	uk.sic_code
Economic Operators Registration and Identification (EORI) number	eu.eori_code
Excise Authorisation Verification (SEED) number	eu.seed_number
Data Universal Numbering System (DUNS) number	uk.duns_number
data protection registration number	dprn