
**Financial services — Legal entity
identifier (LEI)**

Services financiers — Schéma d'identifiant d'entité légale (IEL)

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 68, *Financial services*, Subcommittee SC 8, *Reference data for financial services*.

This second edition cancels and replaces the first edition (ISO 17442:2012), which has been technically revised.

The main changes to the previous edition are as follows:

- clarification that individuals acting in a business capacity are considered as legal entities for the purposes of being assigned an LEI;
- clarification of the how alpha and numeric characters are used in LEI codes;
- clarification of the method for computing the check digit pair and verifying the correctness of an LEI code;
- addition of the ISO 20275 (ELF) code as an attribute of the LEI data record.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

Legal entity identification is an integrated and necessary component of financial services transactions. Entering into business relationships requires “know your customer” processes to be initiated and maintained for the duration of these relationships and any longer-term data retention requirements to be addressed. Parties involved in financial transactions need to be identified within these transactions. Then the risk of each party and the resulting concentration risk also need to be measured. All of this is to be achieved while the support for straight through processing (STP) is maintained.

Following the global financial crisis of 2008, the need for regulators to identify legal entities, both nationally and across the global markets, has been raised as a critical need. More specifically, regulators are asking for standards to be used within the solutions they are developing to address the data collection and analysis needs resulting from the crisis.

This document fulfils the need for legal entity identification of the global financial services industry and the regulatory community. Its key provisions are that it:

- enables unique identification globally of entities requiring a legal entity identifier (LEI);
- defines an LEI code that contains no embedded intelligence;
- defines an LEI code that is interoperable with other standards and existing reference data and can be applied globally to support the financial services industry;
- leverages the expertise of ISO/TC 68 in defining and maintaining identifier standards;
- defines an LEI scheme that is reliable and an LEI code that is persistent;
- defines an LEI scheme that is extensible and free from limitation on use and redistribution.

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Financial services — Legal entity identifier (LEI)

1 Scope

This document specifies the minimum elements of an unambiguous legal entity identifier (LEI) scheme to identify the legal entities relevant to any financial transaction.

It is applicable to legal entities, which include, but are not limited to, unique parties that are legally or financially responsible for the performance of financial transactions or have the legal right in their jurisdiction to enter independently into legal contracts, regardless of whether they are incorporated or constituted in some other way (e.g. trust, partnership, contractual). It includes governmental organizations, supranationals and individuals when acting in a business capacity¹⁾, but excludes natural persons.

The LEI is designed for automated processing. It can also be conveniently used in other media interchange when appropriate (e.g. paper document exchange).

NOTE Examples of eligible legal entities include, without limitation:

- all financial intermediaries;
- banks and finance companies;
- all entities that issue equity, debt or other securities for other capital structures;
- all entities listed on an exchange;
- all entities that trade stock or debt; investment vehicles, including mutual funds, pension funds and alternative investment vehicles constituted as corporate entities or collective investment agreements (including umbrella funds as well as funds under an umbrella structure, hedge funds, private equity funds);
- all entities under the purview of a financial regulator and their affiliates, subsidiaries and holding companies;
- sole traders (as an example of individuals acting in a business capacity);
- counterparties to financial transactions.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 3166 (all parts), *Codes for the representation of names of countries and their subdivisions*

ISO/IEC 7064, *Information technology — Security techniques — Check character systems*

ISO 20275, *Financial services — Entity legal forms (ELF)*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>

1) As stated by the LEI Regulatory Oversight Committee on 30 September 2015.

— IEC Electropedia: available at <http://www.electropedia.org/>

3.1

legal entity

legal person or structure that is organized under the laws of any jurisdiction

3.2

supranational

governmental or non-governmental entity that is established by international law or treaty or incorporated at an international level

3.3

address of legal formation

current legal address in the jurisdiction in which the entity is established

3.4

investment vehicle

mutual fund, pension fund or alternative investment fund constituted as a corporate entity or collective investment agreement

EXAMPLE Umbrella funds as well as sub-funds under an umbrella structure, hedge funds and private equity funds.

4 Structure of the LEI

This document uses the following conventions for data element representations.

a) Character representations:

- a: upper-case letters (alpha characters A–Z only);
- n: digits (numeric characters 0–9 only);
- c: upper-case alphanumeric characters (A–Z and 0–9 only).

b) Length indications:

- nn!: fixed length;
- nn: maximum length.

The format of the LEI shall be:

- 18!c2!n.

The LEI consists of 20 alphanumeric characters decomposed as follows:

- characters (18!c) without separators or “special” characters;
- the 19th and 20th characters (2!n) shall be the check digit pair, as calculated from the scheme defined in this document.

5 Check digit pair

5.1 General

The check digit pair shall be calculated based on the simplified procedure defined in ISO/IEC 7064 (MOD 97-10) after the conversion of the leftmost 18 alphanumeric characters into a character string consisting only of digits. The check digit pair is used to verify that the LEI code is properly formed.

Valid check digit pairs are in the range of [02 .. 98]. 00, 01, and 99 are not valid LEI check digit pairs.

If the check digit pair has been calculated correctly, when the entire 20-character LEI is converted to numbers following the process described in 5.2, step 1, and divided by 97 as described in 5.2, step 3, the remainder shall be “1”.

See [Annex A](#) for examples.

5.2 Calculating the check digit pair

Step 1: Any letters in the 18 alphanumeric characters shall be converted to digit pairs in accordance with ISO/IEC 7064 (MOD 97-10), as follows:

A = 10	F = 15	K = 20	P = 25	U = 30
B = 11	G = 16	L = 21	Q = 26	V = 31
C = 12	H = 17	M = 22	R = 27	W = 32
D = 13	I = 18	N = 23	S = 28	X = 33
E = 14	J = 19	O = 24	T = 29	Y = 34
				Z = 35

Step 2: Two zeros shall be appended to the resulting string at the rightmost positions.

Step 3: A Euclidian division of the resulting number by 97 shall be performed to determine the remainder.

Step 4: The remainder shall be subtracted from 98 to determine the check digit pair.

Step 5: The check digit pair shall be appended to the original 18 alphanumeric characters to form the 20 alphanumeric character LEI code.

6 LEI data record

In order to ensure an unambiguous identification of the legal entities, a set of data attributes shall be provided by any requestor. The LEI data record shall be composed of at least the following data attributes.

- The official name of the legal entity as recorded in the business registry, or with the fund manager for collective investment vehicles, or otherwise in the entity's constituting documents. Where applicable, the name of the business registry in which the entity was formed and the identifier of the entity in the business registry should be recorded.
- The address of the headquarters of the legal entity or the address of the fund manager.
- The address of legal formation, and the country in which it is located as represented in the ISO 3166 series.
- The legal form of the entity as represented in ISO 20275.
- The date of the first LEI assignment.
- The date of last update of the LEI data record.
- The date of expiry of the LEI and reason for expiry, if applicable. For entities with a date of expiry, if applicable, the LEI of the entity or entities that acquired the expired entity should also be recorded.

Annex A (informative)

LEI check digit pair calculation and verification examples

A.1 Calculation

Start: Take an 18 alphanumeric character string assigned for an LEI without check digit pair:

YZ83GD8L7GG84979J5

Step 1: Any letters in the 18 alphanumeric characters shall be converted to digit pairs in accordance with ISO/IEC 7064 (MOD 97-10):

34358316138217161684979**195**

Step 2: Two zeros shall be appended to the resulting string at the rightmost positions:

34358316138217161684979195**00**

Step 3: A Euclidian division of the resulting number by 97 shall be performed to determine the remainder:

Remainder = 82

Step 4: The remainder shall be subtracted from 98 to determine the check digit pair:

Check digit pair = 16

Step 5: The check digit pair shall be appended to the original 18 alphanumeric characters to form the 20 alphanumeric character LEI code:

LEI code = YZ83GD8L7GG84979J**516**

A.2 Verification

A.2.1 Example with correct check digit pair

LEI code including check digit pair: YZ83GD8L7GG84979J**516**

a) Convert the letters in the LEI code to digit pairs in accordance with ISO/IEC 7064 (MOD 97-10):

34358316138217161684979**19516**

b) Perform a Euclidian division of the resulting number by 97 to determine the remainder:

Remainder = 1

c) Verify the check digit pair and remainder:

The check digit pair is in the range [02 .. 98] and the remainder of the division is 1.

The LEI code YZ83GD8L7GG84979J**516** is therefore determined to be properly formed.

A.2.2 Example with incorrect check digit pair

LEI code including check digit pair: YZ83GD8L7GG84979J563

- a) Convert the letters in the LEI code to digit pairs in accordance with ISO/IEC 7064 (MOD 97-10):

3435831613821716168497919563

- b) Perform a Euclidian division of the resulting number by 97 to determine the remainder:

Remainder = 48

- c) Verify the check digit pair and remainder:

The check digit pair is in the range [02 .. 98], but the remainder of the division is not 1.

The LEI code YZ83GD8L7GG84979J563 is therefore determined to be not properly formed.

A.2.3 Example with incorrect check digit pair

LEI code including check digit pair: 315700K7NYVSQJNTN401

- a) Convert the letters in the LEI code to digit pairs in accordance with ISO/IEC 7064 (MOD 97-10):

315700207233431282619232923401

- b) Perform a Euclidian division of the resulting number by 97 to determine the remainder:

Remainder = 1

- c) Verify the check digit pair and remainder:

The remainder of the division is 1, but the check digit pair is not in the range [02 .. 98].

The LEI code 315700K7NYVSQJNTN401 is therefore determined to be not properly formed.