INTERNATIONAL STANDARD

ISO 13616-1

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Financial services — International bank account number (IBAN) —

Part 1: Structure of the IBAN

Services financiers — Numéro de compte bancaire international (IBAN) —

Partie 1: Structure de l'IBAN

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Foreword

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International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 13616-1 was prepared by Technical Committee ISO/TC 68, *Financial services*, Subcommittee SC 7, *Core banking*.

This first edition of ISO 13616-1, together with ISO 13616-2, cancels and replaces ISO 13616:2003, which has been technically revised.

ISO 13616 consists of the following parts, under the general title *Financial services — International bank account number (IBAN)*:

— *Part 1: Structure of the IBAN*

— *Part 2: Role and responsibilities of the Registration Authority*

The following are a summary of the major changes in this revision of ISO 13616:

— the IBAN has a fixed length per country;

— the bank identifier has a fixed length and position within the BBAN component of the IBAN;

— a second part of ISO 13616 has been created, describing the roles and responsibilities of a Registration Authority.

Introduction

0.1 General

The use of electronic communication media and services internationally for the cross-border transmission of information and payment and payment-related transactions between financial institutions, as well as between financial institutions and their customers, continues to increase. In order to facilitate automated processes in support of straight through processing (STP) in this environment, ISO 13616 has been developed by ISO/TC 68/SC 7 as a means by which financial institutions and their customers can exchange, through inter-industry electronic data interchange (EDI), customer account identification details in a machine-readable form. It also makes provision for validation of the information provided.

In developing ISO 13616, it was recognized that a single, universal method for identifying the account and banking relationship for customers of financial institutions was not practical. Accordingly, ISO 13616 recognizes that financial institutions would wish to retain, wherever possible, their current national identification methods. It therefore provides a method whereby a minimum amount of change to existing systems is required and, at the same time, proposes a means of structuring the information in a way that promotes automated processing of the information provided.

It is anticipated that the use of ISO 13616 in electronic data interchange will:

a) reduce the need for manual intervention in the processing of inter-industry and intra-industry data interchange,

b) improve the level of confidence in the accuracy of the information provided, and

c) provide certainty that the information provided is relevant to the country of ownership of the account.

It is recognized that the IBAN would also be of use in a paper environment. The use of information to further qualify details of the financial institution at which the IBAN applies is not precluded by their use outside of the IBAN.

Nationally agreed IBAN formats that are compliant with ISO 13616, and subsequently registered with the ISO 13616 Registration Authority, are published on http://www.swift.com.

0.2 Background to this revision of ISO 13616

This revision of ISO 13616 was requested to achieve alignment between the ISO IBAN standard and the IBAN standard of the European Committee for Banking Standards (ECBS), in order to have one single globally accepted standard.

This revision of ISO 13616 incorporates the experience gained in the many European countries that have already implemented the IBAN based on the ECBS standard. The critical advantages compared to the previous ISO IBAN standard are the requirement for a fixed length of the IBAN, as well as a fixed length and position of the bank identifier within the IBAN. This enables plausibility checks, resulting in better STP and improved cost efficiency.

The agreement of ISO TC 68/SC 7 and its Working Group 1 was based on extensive discussions, to clarify how ISO 13616 has worked in the past, and how it will continue to work.

One of the main concerns was that the fixed length requirement stipulated in this revision of ISO 13616 would necessitate changes to domestic account numbers, or that the different national account number structures would need to be harmonized. However, this will not be the case, in view of the fact that the fixed length will be achieved when creating the IBAN.

In addition, given the possibility that domestic accounts may use lower case alpha characters, ISO 13616 remains unchanged on this point, i.e. lower case characters continue to be allowed, although the check digit algorithm will continue to be case independent.

Financial services — International bank account number (IBAN) —

Part 1: Structure of the IBAN

1 Scope

This part of ISO 13616 specifies the elements of an international bank account number (IBAN) used to facilitate the processing of data internationally in data interchange, in financial environments as well as within and between other industries. The IBAN is designed for automated processing, but can also be used conveniently in other media interchange when appropriate (e.g. paper document exchange, etc.).

This part of ISO 13616 does not specify internal procedures, file organization techniques, storage media, languages, etc. to be used in its implementation, nor is it designed to facilitate the routing of messages within a network. It is applicable to the textual data which might be conveyed through a system (network).

2 Normative references

The following referenced documents are indispensable for the application 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 3166-1, *Codes for the representation of names of countries and their subdivisions — Part 1: Country codes*

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

3 Terms and definitions

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

3.1
account number
identifier that identifies an account

3.2
bank identifier
identifier that uniquely identifies the financial institution and, when appropriate, the branch of that financial institution servicing an account

3.3
basic bank account number
BBAN
identifier that uniquely identifies an individual account at a specific financial institution in a particular country and which includes a bank identifier of the financial institution servicing that account

3.4
international bank account number
IBAN
expanded version of the basic bank account number (BBAN), intended for use internationally, which uniquely identifies an individual account at a specific financial institution, in a particular country

NOTE Although designed for use internationally, there is nothing to prevent the use of the IBAN domestically.

4 Conventions

This part of ISO 13616 uses the following conventions for data element representations.

— Status of sub-elements of a data element:

[ ] optional.

— Character representations:

n digits (numeric characters 0 to 9 only);

a upper case letters (alphabetic characters A-Z only); or

c upper and lower case alphanumeric characters (A-Z, a-z and 0-9);

e blank space.

— Length indications:

nn! fixed length;

nn maximum length.

5 Structure

The format of the IBAN shall be:

2!a2!n30c

where

a) the first two letters (2!a) shall always be the two-character country code (alpha-2 code), as defined in ISO 3166-1, of the country in which the financial institution servicing the account resides;

b) the third and fourth characters (2!n) shall be the check digits, as calculated from the scheme defined in this part of ISO 13616 (see Clause 6);

c) the remaining part of the IBAN (up to 30c), the BBAN, shall only contain upper and lower case letters (A to Z and a to z) and numeric characters (0 to 9), without special characters such as separators and punctuation that may be used in national account number schemes;

d) the BBAN shall in addition:

— have one fixed length per country, and

— include within it a bank identifier with a fixed position and length per country.

If the BBAN is structured in line with bullet d) above, the corresponding IBAN format would meet the requirements for inclusion in the ISO IBAN registry. IBAN formats whose design was based on a previous edition of ISO 13616, and which do not comply with d) above, may be included in a special section of the registry where information will be included as free text.

For the representation of the IBAN in a printed format, see Annex A.

6 Check digits

6.1 General

The check digits will be calculated based on the scheme defined in ISO/IEC 7064 (MOD 97-10). See Annex B.

The check digits are used to verify the BBAN and country code.

Only the financial institution which services (maintains) the account is allowed to generate its IBAN (including check digits).

6.2 Checking the check digits

6.2.1 If the IBAN is in paper format (see Annex A), delete all blank spaces.

6.2.2 Move the first four characters to the right-hand end of the IBAN.

6.2.3 Convert upper and lower case letters to digits in accordance with the following:

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

6.2.4 Apply the check character system MOD 97-10 (see ISO/IEC 7064).

6.2.5 If the remainder is 1 (one), the number is valid.

6.3 Generating the check digits

6.3.1 Add the country code (2!a) and “00” to the right-hand end of the BBAN.

6.3.2 Convert letters (alpha-2 code characters) to digits (numeric characters) in accordance with 6.2.3.

6.3.3 Apply the check character system MOD 97-10 (see ISO/IEC 7064).

7 Registration of IBAN formats

National standards bodies wishing to register an ISO 13616-compliant IBAN format for their country should refer to ISO 13616-2.

8 Formats and samples of IBANs

ISO 13616-compliant IBAN formats and samples can be found in the registry of national IBAN formats maintained by the Registration Authority described in ISO 13616-2.

Annex A
(normative)

Representation of the IBAN in the printed format

A.1 Introduction

This annex specifies the use and representation of IBAN in the printed format.

A.2 Scope

In a printed format, where the specification of an international bank account number is requested, the IBAN shall be used as defined in this annex.

The generation of a payment (or related) instruction on paper shall always include an IBAN and, in addition, where appropriate, the instruction may include identification of the financial institution servicing the account by an alternative identification scheme other than that implicit in the IBAN (e.g. BIC as defined in ISO 9362).

Mandating the positioning of the IBAN in/on a paper or similar instruction is not considered to be within the scope of this annex.

A.3 Structure

In a printed format, the IBAN structure (2!a2!n30c) shall remain, but the IBAN shall be printed in groups of four characters and each group should be separated by a blank space. The reason for this is to increase the readability of the IBAN when presented on paper in printed format.

EXAMPLE:

Electronic IBAN: BE68539007547034

Printed IBAN: BE68 5390 0754 7034

Annex B
(informative)

Example of how to calculate and validate the check digits

B.1 Constructing an IBAN and calculating check digits

B.1.1 The example given in this annex is based on an example of a Czech Republic domestic account number and the explanation of the IBAN structure given in Clause 5. The structure of the Czech Republic domestic account number consists of an account number of between six and twenty digits, and within it a bank identifier with a fixed length of four digits and which is always in the last four positions.

EXAMPLE For the domestic account number 19-2000145399/0800, the bank identifier is 0800.

B.1.2 Format the BBAN by deleting all non-alphanumeric characters.

EXAMPLE The domestic account number 19-2000145399/0800 becomes 1920001453990800.

B.1.3 Add the country code (2!a from ISO 3166-1) followed by the digits “00” to the right-hand end of the BBAN.

EXAMPLE The same number now becomes 080000001920001453 99CZ00.

B.1.4 Convert the alpha characters to numeric characters in accordance with 6.2.3.

EXAMPLE The number now becomes 080000001920001453 99123500.

B.1.5 Calculate the modulo 97 (the remainder after division by 97).

EXAMPLE After division by 97, the remainder of 080000001920001453 99123500 is 33 (thirty-three).

B.1.6 Subtract the remainder from 98 and, if the result is less than ten, insert a leading zero.

EXAMPLE 98 minus 33 equals 65.

NOTE The example given in this annex does not require insertion of a leading zero.

B.1.7 Insert the country code and check digit at the left-hand end of the BBAN.

EXAMPLE The IBAN is equal to CZ6508000000192000145399 (electronic format) or
CZ65 0800 0000 1920 0014 5399 (print format).

B.2 Validating the check digits in an IBAN

B.2.1 This method is used to validate the check digits of an IBAN.

EXAMPLE The IBAN to be validated is CZ6508000000192000145399.

B.2.2 Move the first four characters of the IBAN to the right of the IBAN.

EXAMPLE The number becomes 080000001920001453 99CZ65.

B.2.3 Convert the alpha-2 code characters to numeric characters in accordance with 6.2.3.

EXAMPLE The number becomes 080000001920001453991235 65.

B.2.4 Calculate the modulo 97 (the remainder after division by 97).

EXAMPLE After division by 97, the remainder of 080000001920001453991235 65 is 1 (one).

B.2.5 If the remainder is 1 (one), then the check digits are correct for the IBAN.

Bibliography

[1] ISO 9362, *Banking — Banking telecommunication messages — Bank identifier codes*

[2] ISO 13616-2, *Financial services — International bank account number (IBAN) — Part 2: Role and responsibilities of the Registration Authority*

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