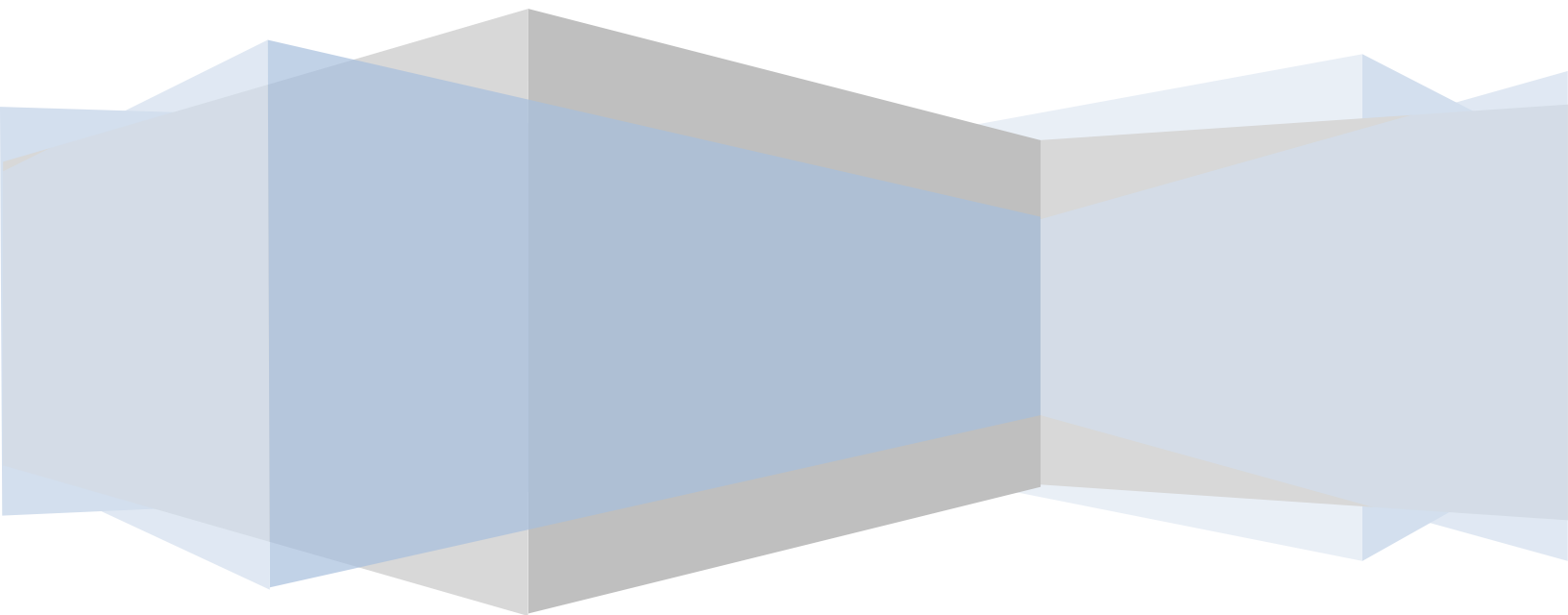


# State Bank of Pakistan

## Guidelines: IBAN Implementation in Pakistan



# Guidelines: IBAN Implementation in Pakistan

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## Table of Contents

- 1. Introduction**
- 2. IBAN Implementation**
- 3. IBAN Benefits**
- 4. Scope**
- 5. IBAN Implementation Phases**
- 6. IBAN Format**
- 7. Proposed IBAN Format in Pakistan.**
  - 7.1. BBAN Structure**
- 8. IBAN Generation and Verification**
  - 8.1. Generation Principles**
  - 8.2. IBAN Generation**
  - 8.3. IBAN Verification**
- 9. IBAN Usage**
- 10. IBAN Validation**

## **Appendices**

- A. Character Conversion Table**

# Guidelines: IBAN Implementation in Pakistan

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## 1. Introduction

The International Bank Account Number (IBAN) is an international standard for identifying bank accounts across national borders with a minimal of risk of propagating transcription errors. Already implemented in more than 50 countries (including EU, S. Arabia, Kuwait, and UAE), IBAN Implementation can result not only in bringing more efficiency in cross border transactions transfers including remittances sent by overseas Pakistanis from IBAN Compliant Countries but will also result in facilitation of domestic electronic transfers.

The IBAN concept was developed by the ECBS (European Committee for Banking Standards) and International Organization for Standardization (ISO) and is an internationally agreed standard (ISO 13616-1:2007) for identifying bank accounts. IBAN Standard is well known to banks and provider of payment systems in other countries.

## 2. IBAN Implementation

State Bank of Pakistan, in order to create consensus for implementing this standard in Pakistan enlisted Pakistan Bank's Association (PBA) support requiring nomination of a high powered committee responsible for implementing this standard. PBA has accordingly constituted a committee comprising of officials from Habib Bank, MCB Bank, Allied Bank, Citi Bank, United Bank, Bank Alfalah and National Bank of Pakistan. The IBAN Committee has agreed on the structure of IBAN format to be implemented in banking industry across Pakistan.

## 3. IBAN Benefits

- A bank account standard across Pakistan will bring more efficiency in payment processing by enabling the payments\clearing systems to electronically validate account numbers and to decide the route a payment should take without manual intervention.
- Elimination of delays in credit transfers originating from IBAN compliant countries to Pakistan as same are delayed, sometimes for several days due to manual intervention required for sending credit transfers to non IBAN compliant account numbers.
- IBAN implementation will help in bringing more efficiency in remittance related transactions as a significant percentage of these transactions are rejected due to inaccurate account numbers information. Account validation at remitting institution due to IBAN's check digit mechanism will significantly reduce errors related to account numbers.

## 4. Scope

The document specifies the format of International Bank Account Number (IBAN), including the format of Basic Bank Account Number (BBAN) contained in IBAN. The document specifies how the IBAN is generated and validated. The document also specifies who may generate and issue IBANs. The standard specifies the technique of validating an IBAN and the point at which this validation must be carried out.

# Guidelines: IBAN Implementation in Pakistan

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## 5. IBAN Implementation Phases

IBAN standard will be implemented in Pakistan in two phases.

### Phase 1 – December 2012

In the first phase, all the banks shall generate and notify IBAN to all their customers by December 2012.

### Phase 2 – June 2013

In the second phase, IBAN account numbers will be operationally used (capturing, recognition, processing, validation, transfer) both for domestic as well as for international financial transactions by June, 2013.

## 6. IBAN Format

IBAN is made up of the two components. The first component comprising of a country code and check digit, sometimes known as international envelope and the 2<sup>nd</sup> component called Basic Bank Account Number (BBAN). IBAN therefore is made up of the following elements:

1. International envelope
  - 1.1. A two letter country code (CC).
  - 1.2. A two-number check digit (CD) for the entire IBAN. Check digit feature ensures (by validation) that account number provided (to remitting bank) is correct.
2. Basic Bank Account Number (BBAN)

A Basic Bank Account Number (BBAN), no more than 30 characters long, comprising Bank Identifier (BI), branch codes (if applicable) and Bank Account Number (BAN)

### Example of IBAN

**CH 9300762011623852957**

|              |             |      |                |
|--------------|-------------|------|----------------|
| CH           | 93          | 0076 | 2011623852957  |
| Country Code | check digit | BI   | account number |



**International Envelope                      BBAN**

When printed on paper, the IBAN is split into sets of four characters, as this is easier to read. A field tag ‘IBAN’ should also be printed in paper based representation as:

IBAN: CH93 0076 2011 6238 5295 7

## 7. Proposed IBAN Format in Pakistan

ISO Standard 13616-1 requires that:

# Guidelines: IBAN Implementation in Pakistan

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1. a two letter (alpha) country code (ISO 3166) be used for IBAN.
2. Check Digit be calculated for each IBAN using MOD 97-10(see section 8).
3. IBAN has a fixed length per country.
4. The bank identifier has a fixed length and position within BBAN component of the IBAN.

In order to meet these ISO Standard requirements:

1. A two letter Country code 'PK' for Pakistan as allocated by ISO is to be used for IBAN.
2. Check Digit will be calculated by applying MOD 97-10 by each account servicing institution at the time of IBAN generation for account holders.
3. A 24 digit IBAN number is proposed to be introduced in Pakistan.
4. Initial four letters of SWIFT BIC be used as Bank Identifier in Pakistan.

## Example of proposed IBAN in Pakistan

**PK00MUCB1234567890000001**

|             |       |   |                  |
|-------------|-------|---|------------------|
| PK          | 00    | MUCB  | 1234567890000001 |
| Country     | check | BI  | account code     |
| Code        | digit |  |                  |
| <b>BBAN</b> |       |   |                  |

### 7.1. BBAN Structure

The BBAN, Basic Bank Account Number consists of two parts:

1. **Bank Identification:** The bank code is the first four characters of the bank's SWIF BIC code that unambiguously identifies the institution. The BIC codes are registered by S.W.I.F.T.

The banks that do not have their BICs registered with SWIFT will be using the BICs as defined in PRISM System or as assigned by the SBP.

Bank Identifier code for MCB therefore will be MUCB, for Habib Bank Ltd is HABB etc. Assigning these alpha codes will help in recognizing beneficiary banks in paper as well as in electronic transfers.

2. **Account Code:** A 16 digit code will be used to identify account number. Banks can use their existing account numbers in the account code space of BBAN. The account code may also include account type, check digit, currency code, product code etc. as per the prevailing practice within the banks.

It is acknowledged that all banks are not using 16 digit account numbers. Banks using less than 16 digit account number will be required to pad 0's at the left side of their existing account number. Few banks are using more than 16 digit account

# Guidelines: IBAN Implementation in Pakistan

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numbers. These banks will be required to drop unnecessary digits from their account numbers.

## **Example 1**

Existing account number format in Bank A is 2112345607. In order to comply with IBAN standard this account number will be padded with six 0's at the left side making the number as 0000002112345607.

## **Example 2**

Existing account number format in Bank B is 2112345607898. In order to comply IBAN standard this account number will be padded with three 0's at the left side making the number as 0002112345607898

## **8. IBAN Generation and Verification**

### **8.1. Generation Principles**

An IBAN may only be generated by the financial institution or bank holding the customer's account. The financial institution issuing an IBAN to a customer account in Pakistan must use the country code PK to indicate that the customer's account is domiciled in Pakistan. Similarly, the BBAN format must be the agreed format as proposed by State Bank of Pakistan in consultation with PBA Committee on IBAN. Upon notification of an IBAN to a customer, the financial institution or bank should encourage the customer to quote the IBAN clearly and in full on all domestic and international financial transactions, for debits as well as for credits. The IBAN must be generated according to the process<sup>1</sup> described in the following section, *IBAN Generation*.

### **8.2. IBAN Generation**

The following example shows how IBAN can be generated using existing account number formats.

#### **Example:**

An existing account number maintained in a bank is 01123456702. In order to convert this number to IBAN following step shall be performed:

1. Convert this account number to 16 digits in order to make it compliant with proposed BBAN format. This can be done by padding additional 0's on the left side of the account number as 0000001123456702.
2. Put bank identification code (first four letter of SWIFT BIC) on the left side of the account number i.e. SCBL0000001123456702. This number is known as BBAN.
3. Write complete account number preceded by country code as PK, check digit to be calculated as 00, giving the full account number as

PK00 SCBL0000001123456702

To calculate the check digit, following process is undertaken:

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<sup>1</sup> These guidelines do not address the technical process through which IBAN may be generated by the institutions.

## Guidelines: IBAN Implementation in Pakistan

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- a) Place country code and check digit in the end as mentioned below.

SCBL0000001123456702 PK00

- b) Replace the alphabets in the IBAN as defined in Character Conversion Table (Annexure A). According to the table, 'S' is replaced by 28, 'C' is replaced by 12, B is replaced by 11 and L is replaced by 21 and so on.

281211210000001123456702 252000  
S C B L P K

- c) Take modulus 97 of the number obtained in the step above, the remainder in this case is 62
- d) Subtract the remainder from 98, the result is **36**. This number is called Check Digit.
- e) If the result of subtracting the remainder from 98 is less than 10, than add a leading zero to the remaining number. e.g. if the result after subtraction from 98 is 5 then check digit will be 05.

The IBAN generated for this account 01123456702 will be as follows:

**PK36SCBL0000001123456702**

The IBAN is presented in all *printed forms* in sets of four alphabetic characters/numeric digits separated by spaces as follows

**PK36 SCBL 0000 0011 2345 6702**

### 8.3. IBAN Verification *(by transacting/account holder's bank)*

The following steps may be used to verify<sup>2</sup> quoted IBAN:

1. Move the two alphabetic character country code and check digit pair from the front of the IBAN to back

SCBL0000001123456702 PK36

2. Convert all alphabetic characters to numeric digits according to the standard character Conversion Table – 'Annexure A'

281211210000001123456702252036  
S C B L P K

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<sup>2</sup> The IBAN Verification Process only verifies the correction of quoted IBAN and does not verify its existence.



## Guidelines: IBAN Implementation in Pakistan

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3. Take modulus 97 of the number obtained in the above step, if this remainder is 1, then the IBAN is valid.

### **9. IBAN Usage**

The IBAN usage is as follows:

- Bank should generate and issue IBAN to its account holders. Bank should encourage customers to use their IBAN number in all financial transactions during the transitional period. Banks are further advised to develop online utilities for converting their account numbers to IBAN in order to facilitate their account holders besides quoting IBAN number in account statements issued to each account holder.
- Beneficiary customer should notify ordering customer of their IBAN.
- Paying bank shall validate IBAN and use the data to process payment.
- IBAN should be validated for all inward payments to ensure account number accuracy.

### **10. IBAN Validation**

The financial institutions should validate the IBANs at the time of entry of the transaction in their system both for sending and receiving customers.

Financial institutions can build IBAN validation tools in-house or can use different IBAN validation websites to determine whether an IBAN number given is valid or not.

# Guidelines: IBAN Implementation in Pakistan

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**Annexure A: Character Conversion Table**

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|   |    |   |    |   |    |   |    |   |    |
|---|----|---|----|---|----|---|----|---|----|
| 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 |

**-End of Document-**