

## TERMS OF REFERENCE FOR THE R&D PROJECT

**Title: Study of usage and implementation of published Indian standards in Banking and Financial Services Sector**

### **1 BACKGROUND:**

- 1.1** The Banking and Financial Sector affects the country's economy by providing credit, infrastructure, and investment and plays a vital role in the growth and expansion of a country. This sector relies on various standards, guidelines, regulations, and best practices issued by different regulators to ensure operational efficiency, security, and compliance. These frameworks play a crucial role in protecting consumers, setting standards for fair transactions, and mandating transparent interactions between financial institutions and their clients.
- 1.2** Bureau of Indian Standards (BIS), the National Standards Body of Indian, has published 57 Indian standards in Banking and Financial Services sector. A list of these standards is placed at **Annex-1**. ([Click here to download](#))
- 1.3** Banking and Financial Services Sectional Committee, SSD 03, has decided to undertake a study to gather information about the awareness, usage, and implementation of 57 published Indian Standards and identify the challenges being faced by the stakeholders in implementing those standards. The study will also pave the way to provide inputs on new subjects that can be taken up for standardization.

### **2 OBJECTIVES:**

- 2.1** Collection and analysis of data from the primary and secondary sources to know the status of usage and implementation of 57 published Indian Standards and challenges faced by the stakeholders in implementing these standards which will provide inputs for considering modifications in the existing standards which are not in line with existing guidelines and practices currently being followed.
- 2.2** Identification of emerging trends, innovations, and best practices in the Banking and Financial Services Sector and new subjects for standardization.

### **3 SCOPE**

- 3.1** Undertake a study of 57 published Indian Standards as given in **Annex-1**, and relevant literature which includes relevant regulations and guidelines issued by the government, standard operating procedures, and best practices being followed by the industry.
- 3.2** Comparative analysis of information and data collected as stated in para **3.1**.
- 3.3** Categorize the stakeholders relevant to published Indian standards and conduct a study on the

following:

- a) General awareness about BIS published standards among stakeholders;
- b) Status of the level of usage and implementation of existing 57 published Indian standards;
- c) Identification of standards that are not in use but relevant to the stakeholders;
- d) Detailed reasons, including internal and external issues, for non-implementations of Indian standards and challenges being faced by the stakeholders in this regard;
- e) Reference of published Indian Standards in the guidelines/SOPs/Manuals;
- f) Statutory and regulatory requirements and references of national and international standards therein;
- g) Protocols for data security, privacy, and protection;
- h) Assessment of interoperability with other stakeholders in terms of processes and technology being used.
- i) Identify emerging trends, technological advancements, and innovations in the field of Banking and Financial sector
- j) Identification of areas/subjects needed by Banking and Financial Services Sector for the development of standards.

**3.4** Conduct visits to the stakeholders and interact with the relevant officials engaged in policy making activities on the parameters stated in para **3.3**, as per the following sampling plan:

<b>Stakeholder</b>	<b>Category</b>	<b>Number of Institutions to be visited in each category</b>
Banks	Nationalized bank	One
	Private sector bank	One
	Multinational Bank	One
Fintech companies	Payment Gateway	Any one
	Payment facilitator through QR codes	
Regulatory Bodies	RBI	One
	SEBI	One
Government Agencies	NIC	One
	CERT-In	One
Industry associations	Indian Banks' Association (IBA)	One
Software companies dealing with banking and finance	Company having a minimum of 10 years of experience in providing IT services to banks	One

**3.5** Prepare a report covering the details as mentioned in para **3.1** to **3.4**.

## **4 METHODOLOGY**

- 4.1** A thorough review of the existing 57 published Indian Standards and literature as stated in **3.1**.
- 4.2** Collection of data through circulation of a structured questionnaire.
- 4.3** Conduct visits as per the sampling plan stated in para **3.4** and study the information and data as stated in para **3.3**. After the identification of stakeholders to be visited, take consent of BIS before proceeding further.
- 4.4** Focused group discussions after the visits for comparative analysis of the collected data.
- 4.5** Prepare a report based on the findings and data collected as per para **3**.

## **5 DELIVERABLES**

- 5.1** Preparation of a report containing information, data, and analysis in context with para **3** along with the evidence containing statements, questionnaire, details of interviews, outcome of consultation with stakeholders and data collected during literature review and visits. The report shall be submitted in hard as well as soft copy within the timeframe.

## **6 TIMELINE AND METHOD OF PROGRESS REVIEW**

- 6.1** The time frame of completing the study and submitting the final report is 3.5 months from the date of the award of the project.

### **Stage wise timelines:**

- a) Interim Report covering the review of the literature, existing stipulations, and visit plan for approval of BIS – within 1 month from the date of award of project.
- b) Report of site visits – within 3 months from the date of award of project.
- c) Draft project report covering all the aspects of the ToR – within 3.5 months from the date of award of project.
- d) The researcher taking up the project shall clear all doubts on provisions of research including ToR and BIS guidelines before acceptance.

## **7 BIS SUPPORT**

BIS will provide access to latest available editions of Indian standards and/ or international standards relevant to the project, on request.

## **8 NODAL CONTACT POINT**

Member Secretary of SSD 03, Services Sector Department, Email: [ssd@bis.gov.in](mailto:ssd@bis.gov.in)

**ANNEX-1**

**LIST OF PUBLISHED STANDARDS IN BANKING AND FINANCIAL SERVICES SECTOR**

<b>Sl. No.</b>	<b>IS No. &amp; Year</b>	<b>Title</b>
1.	IS 15586:2022/ ISO 10962:2021	Securities and related financial instruments- Classification of financial instruments CFI code (Third Revision)
2.	IS 11179: Part 1: 2017/ ISO 1004-1: 2013	Information Processing – Magnetic Ink Character Recognition – Part 1 Print Specifications for E13B (Second Revision)
3.	IS 11179: Part 2: 2016/ ISO 1004-2: 2013	Information Processing – Magnetic Ink Character Recognition Part 2 Print Specifications for CMC7(Second Revision)
4.	IS/ISO 12812-1: 2017	Core banking- Mobile financial services- Part 1: General framework
5.	IS/ISO/TS12812-2:2017	Core banking - Mobile financial services - Part 2: Security and data protection for mobile financial services
6.	IS/ISO/TS12812-3 : 2017	Core banking - Mobile financial services - Part 3: Financial application lifecycle management
7.	IS/ISO/TS12812-4 : 2017	Core banking - Mobile financial services - Part 4: Mobile payments-to-persons
8.	IS/ISO/TS12812-5 : 2017	Core banking - Mobile financial services - Part 5: Mobile payments to businesses
9.	IS/ISO13616 : Part 1 :2020	Financial Services International Bank Account Number IBAN Part 1 Structure of the IBAN (First Revision)
10.	IS/ISO13616 : Part 2 2020	Financial Services – International Bank Account Number IBAN Part 2 Role and Responsibilities of the Registration Authority
11.	IS 14943: Part 1: 2014/ ISO 8583 -1 :2003	Financial Transaction Cards Originated Messages – Interchange Message Specifications Part 1 Message Data Elements and Code Values
12.	IS 14943: Part 2: 2001/ ISO 8583-2:1998	Financial Transaction Card Originated Messages – Interchange Message Specifications – Part 2 Application and Registration Procedures for Institution Identification Codes IIC
13.	IS 14943: Part 3: 2007/ISO 8583-3:2003	Financial Transactions Card Originated Messages – Interchange Message s Part 3 Maintenance Procedures for Messages Data elements and Codes values

14.	IS 15042: Part 1: 2021/ISO 9564-1:2017	Financial Services- Personal Identification Number PIN Management and Security- Part 1: Basic Principles and Requirements for PINs in Card Based Systems (Third Revision)
15.	IS 15042: Part 2: 2017/ISO 9564-2:2014	Financial Services - Personal Identification Number Management and Security: Part 2 Approved Algorithms for PIN Encipherment (Second Revision)
16.	IS 15042: Part 4 : 2019 ISO/TR 9564-4 : 2016	Financial services -- Personal Identification Number PIN management and security -- Part 4: Requirements for PIN handling in e-Commerce for PaymentTransactions
17.	IS 15254: 2002/ ISO 9019:1995	Securities — Numbering of certificates
18.	IS 15256: Part 1: 2011/ISO 11568-1: 2005	Banking – Key Management Retail – Part 1 Principles
19.	IS 15256: Part 2: 2016/ ISO 11568-2 : 2012	Banking Key Management Retail Part 2 Symmetric Ciphers Their KeyManagement and Life Cycle (First Revision)
20.	IS 15256: Part 4: 2013/ISO 11568-4: 2007	Banking – Key Management Retail – Part 4 Key Management Techniques Using Public Key Cryptography
21.	IS 15413 :2018/ ISO 4217:2015	Codes for the Representation of Currencies and Funds (Second Revision)
22.	IS 15415 :2021 ISO 6166:2021	Securities and Related Financial Instruments – International Securities Identification NumberingSystem ISIN (Second Revision)
23.	IS 15587: Part 1: 2005/ISO 15022-1:1999	Securities – Scheme for messagesdata field dictionary Part 1 Data fieldand message design rules and guidelines
24.	IS 15587: Part 2: 2005/ISO 15022-2:1999	Securities – Scheme for messages data field dictionary Part 2 Maintenance of the Data field Dictionary and catalogue message
25.	IS 15899 :2017/ ISO 16609 :2012	Banking Requirements for Message Authentication Using Symmetric Techniques (First Revision)
26.	IS 16005 Part 1: 2019/ISO 13491-1 :2016	Financial Services SecureCryptographic Devices Retail Part 1 Concepts RequirementsandEvaluation Methods (First Revision)
27.	IS 16005 Part 2: 2019/ISO 13491-2 :2017	Financial Services Secure Cryptographic Devices Retail Part 2 Security Compliance Checklists for Devices used in Financial Transactions (First Revision)

28.	IS 16006 :2016 ISO 10383:2012	Securities and Related Financial Instruments Codes for Exchanges and Market Identification MIC (First Revision)
29.	IS 16007 :2021 ISO 13492:2019	Financial Services Key Management Related Data Element Application and Usage of ISO 8583 Data Elements 53 and 96 (First Revision)
30.	IS 16272 :2014 ISO 11649 :2009	Banking Services Core Banking Structured Creditor Reference to Remittance Information
31.	IS 16273 :2014/ ISO 18245 :2003	Retail Financial Services Merchant Category Codes
32.	IS 16418 Part 1: 2021/ISO 17442-1:2020	Financial services Legal entity identifier LEI Part 1: Assignment (First Revision)
33.	IS 16418 Part 2: 2021/ISO 17442-2:2020	Financial services Legal entity identifier LEI Part 2: Application in digital certificates (First Revision)
34.	IS 16836:2018 ISO 18774:2015	Securities and Related Financial Instruments Financial Instrument Short Name FISN
35.	IS/ ISO/ TR19038 : 2005	Banking and related financial services — Triple DEA — Modes of operation — Implementation guidelines
36.	IS/ISO 20022-1: 2013	Financial Services Universal Financial Industry Message Scheme Part 1 Metamodel (First Revision)
37.	IS/ISO 20022-2: 2013	Financial Services – Universal Financial Industry Message Scheme Part 2 UML profile (First Revision)
38.	IS/ISO/TS20022-3 :2013	Financial Services – Universal Financial Industry Message Scheme Part 3 Modelling (First Revision)
39.	IS/ISO/TS20022-4 :2013	Financial Services – Universal Financial Industry Message Scheme Part 4 XML Schema generation (First Revision)
40.	IS/ISO/TS20022-5 :2004	Financial Services – Universal Financial Industry Message Scheme Part 5 Reverse engineering
41.	IS/ISO 20022- 6: 2013	Financial services – Universal financial industry message scheme – Part 6 Message transport characteristics
42.	IS/ISO 20022 – 7: 2013	Financial Services Universal Financial Industry Message Scheme Part 7 Registration
43.	IS/ISO 20022 – 8: 2013	Financial Services – Universal Financial Industry Message Scheme Part 8 ASN 1 Generation
44.	IS/ISO 20038 : 2017	Banking and related financial services - Key wrap using AES
45.	IS/ISO 20275 : 2017	Financial services - Entity legal forms ELF

46.	IS/ISO 21188 : 2018	Public Key Infrastructure for Financial Services – Practices and Policy Framework (First Revision)
47.	IS/ISO 21586:2020	Reference data for financial services Specification for the description of banking products or services BPoS
48.	IS/ISO/TR 21797:2019	Reference data for financial services Overview of identification of financial instruments
49.	IS/ISO 22307: 2008	Financial services - Privacy impactassessment
50.	IS/ISO/TS 23029:2020	Web-service-based application programming interface WAPI in financial services
51.	IS/ISO 23897:2020	Financial services Unique transaction identifier UTI
52.	IS/ISO 5116-1:2021	Improving transparency in financial and business reporting Harmonization topics - Part 1: European data point methodology for supervisory reporting
53.	IS/ISO 5116-2:2021	Improving transparency in financial and business reporting Harmonization topics - Part 2: Guidelines for data point modelling
54.	IS/ISO 5116-3: 2021	Improving transparency in financial and business reporting Harmonization topics Part 3: Mapping between DPM and MDM
55.	IS/ISO 23195:2021	Security objectives of information systems of third-party payment services
56.	IS/ISO 5009:2022	Financial services- Official organizational roles- Scheme for official organizational roles
57.	IS 16198: 2022 ISO 9362:2022	Banking- Banking telecommunication messages Business identifier code BIC Second Revision