

UPU Standards Board – Orientation and resources guide

UPU Standards Board (SB) – Orientation and resources guide

Contents

Foreword.....	iii
Introduction	iv
1 Standards Board	1
2 UPU technical and UPU EDI messaging standards publications	1
2.1 UPU technical standards.....	1
2.2 UPU EDI messaging standards.....	2
2.3 How to obtain UPU standards	2
3 Other resources available on the UPU standards web page	3
3.1 UPU codes and code lists	3
3.2 Catalogue of UPU standards.....	3
3.3 UPU standards version histories	3
3.4 General information on UPU standards	4
3.5 UPU standards glossary.....	4
3.6 Standards status report	4
3.7 An introduction to postal EDI exchanges	5
4 Standards Board – organization and meetings	5
4.1 Roles and responsibilities of participants	5
4.2 Documents and presentations.....	6

Foreword

Postal services form part of the daily life of people all over the world. The Universal Postal Union (UPU) is the specialized agency of the United Nations that regulates the universal postal service. The postal services of its 192 member countries form the largest physical distribution network in the world. More than 4,6 million postal employees working in over 680 000 post offices all over the world handle an annual total of 225 billion letter-post items in the domestic service and 1,5 billion in the international service. More than 26,8 billion parcels are sent by post annually. Keeping pace with the changing communications market, postal operators are increasingly using new communication and information technologies to move beyond what is traditionally regarded as their core postal business. They are meeting higher customer expectations with an expanded range of products and value-added services.

Standards are important prerequisites for effective postal operations and for interconnecting the global network. The UPU's Standards Board develops and maintains a growing number of standards to improve the exchange of postal-related information between postal operators and promotes the compatibility of UPU and international postal initiatives. It works closely with postal handling organizations, customers, suppliers and other partners, including various international organizations. The Standards Board ensures that coherent standards are developed in areas such as electronic data interchange (EDI), mail encoding, postal forms and meters.

UPU standards are drafted in accordance with the rules set out in Part IV of the "General information on UPU standards" and are published by the UPU International Bureau in accordance with Part VI of that publication.

Introduction

Data exchange has long been part of postal operations, but until relatively recently it relied on paper-based methods. Although these methods were familiar to operators, they lacked the speed and efficiency needed to keep pace with a rapidly changing world.

In the 1980s, as technology advanced and use of personal computers and telecommunications grew, it became increasingly clear that electronic data exchange would shape the future of the postal industry. This prompted efforts to determine what could be done better.

Recognizing the opportunities presented by these technological advancements, the 1989 Universal Postal Congress, held in Washington, passed a number of recommendations to explore how automation and electronic communication could enhance postal operations. The goal was to move beyond paper and to improve data quality and data flow across borders.

In 1991, the UPU published a foundational document entitled *Statement of User Requirements*, which outlined the needs of postal operators in an electronic era and laid the groundwork for the development of standards and systems. The overarching aim was to help postal operators to be better informed and more responsive, through smarter, faster and more integrated data sharing.

The Standards Board (SB) – formally established by the UPU Congress in line with resolution C 43/1999 – is the UPU body responsible for defining and maintaining postal technical and messaging standards, with a view to improving postal operational efficiency and quality of service. It also aims to promote the interoperability and compatibility of all UPU and international postal telematics initiatives.

UPU Standards Board (SB) – Orientation and resources guide

1 Standards Board

Standards are essential for seamless and interoperable global postal operations. The UPU International Bureau oversees the publication of standards and coordinates standardization efforts.

The SB, under the Postal Operations Council (POC), develops technical standards and electronic data interchange (EDI) messaging specifications, facilitating operational data exchange among postal operators and other parties in the postal supply chain. It ensures coherence across areas such as coding, encoding and data exchange formats.

Standards developed by the SB are enabling and non-prescriptive in nature, and are designed to support interoperability and innovation without imposing rigid requirements. Their application becomes mandatory only where explicitly specified in UPU regulations.

Simply put, regulations define what needs to be done and standards explain how to do it. Regulations are discussed and approved through formal decision-making processes, whereas standards are tested, revised and refined until they are ready to be officially adopted.

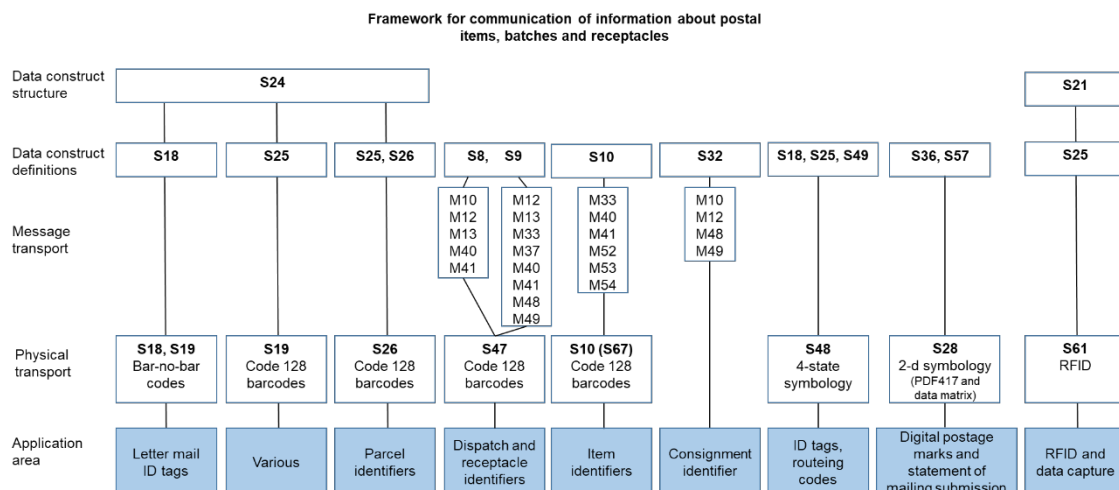
The SB works with external partners such as the European Committee for Standardization and the International Organization for Standardization, with formal agreements in place to support collaboration.

Mandatory standards are generally status 2 standards (i.e. approved UPU standards) (see section 3.4 below). They are made mandatory to ensure interoperability and consistency across the global postal network.

2 UPU technical and UPU EDI messaging standards publications

2.1 UPU technical standards

Technical standards define the characteristics or specifications of physical entities, systems or components (e.g. hardware configurations, identification schemes or physical interfaces). A notable example is the S10 item identifier, which specifies how postal items are uniquely identified within a given system. Technical standards are designated with an “S” prefix and are published independently of messaging standards to maintain clarity and organizational separation. The diagram below provides an overview of the framework for how postal information is communicated. For more details on the standards framework, refer to standard S27 (Framework for communication of information about postal items, batches and receptacles).



2.2 UPU EDI messaging standards

Messaging standards govern the structure, format and semantics of electronic communications between systems. These standards ensure interoperability and consistency in data exchange. They are assigned an “M” prefix and are published separately from technical standards.

Consignment- and dispatch-level messages

- **PREDES** – Notifies (pre-advises) destination of mail en route (origin operator to destination operator)
- **PRECON** – Notifies destination operator of consignment (pre-advice of consignment handed over) (origin operator to destination operator)
- **CARDIT** – Electronic CN 38, notifies carrier about mail to be transported (origin operator to carrier)
- **RESDIT** – Updates mail status data (response to CARDIT) (carrier to origin operator)
- **RESCON** – Confirms receipt of consignment from carrier (response to PRECON) (destination operator to origin operator)
- **RESDES** – Confirms receipt and processing of dispatch (response to PREDES) (destination operator to origin operator)

Item-level messages

- **EMSEVT** – Provides item tracking data (origin operator to destination operator)
- **ITMATT** – Provides item details for operations and customs purposes (origin operator to destination operator)
- **CUSITM (CUStoms ITeM)** – Provides CN 22/CN 23 information (destination operator to destination Customs)
- **CUSRSP (CUStoms ReSPonse)** – Provides response to CUSITM (destination Customs to destination operator)
- **ITMREF (ITeM REFerral)** – Notifies receipt of pre-loading advance cargo information (PLACI) risk assessment from the destination Customs (destination operator to origin operator)
- **REFRSP (REFerral ReSPonse)** – Provides response to ITMREF (action taken and/or information requested) (origin operator to destination operator)

Operators and their partners engaged in UPU EDI exchanges (see section 3.7 below) are each assigned a unique identifier, managed through UPU code lists (see section 3.1 below). These identifiers are used in message headers to authenticate senders and receivers.

2.3 How to obtain UPU standards

UPU standards are the result of extensive collaborative work among postal operators, experts and international partners. The modest fees charged for standards support the ongoing development and maintenance of standards documents, helping to sustain the long-term quality and accessibility of UPU technical and messaging specifications so that they continue to meet the evolving needs of the global postal network.

UPU standards publications can be purchased by completing the order form available on the UPU standards web page, at the following address: www.upu.int/en/Postal-Solutions/Programmes-Services/Standards.

Standards can be obtained in the following ways:

- One-time purchase: Individual documents or sets of documents can be ordered on a one-time basis.
- Annual subscription: Subscribers can opt for an annual plan, providing access to all technical and/or messaging standards and related updates.

Standards are distributed electronically, via download link or e-mail, and can also be provided on CD or in printed format upon request.

3 Other resources available on the UPU standards web page

<https://www.upu.int/en/Postal-Solutions/Programmes-Services/Standards>

3.1 UPU codes and code lists

Code lists are an essential supplement to UPU standards, enabling the consistent representation of specific data values across systems and messaging environments. Typically, a code list is associated with a particular data element within a standard, and each code contained in that list represents one of the predefined, permissible values for that element.

In the context of EDI, codes are widely used to ensure clarity and interoperability, replacing free-text entries with standardized values. These values facilitate automated processing and reliable interpretation of data between different postal and logistics systems.

UPU code lists can be consulted in the Standards Code List Management System, at the following address: https://support.ptc.post/scms_public.

It is important to note that:

- although a large number of code lists exist, not all of them are actively used;
- some code lists are dynamic, with frequent updates, while others remain largely static over time;
- code lists can be embedded directly within the message structure or form part of elements such as the dispatch ID;
- operators generally need to extract and implement specific codes relevant to their systems and operational requirements.

Examples of commonly used code lists include the following:

Number	Name	1st usage in supply chain (typically)
108	International Mail Processing Centre (IMPC) codes, open offices	EMSEVT / PREDES
121	Receptacle type codes	PREDES
120	Format of contents codes	PREDES
117	Mail sub-class codes	PREDES
117a	Mail sub-class codes (valid combinations)	PREDES
119	Receptacle event codes	REDES
107	Handling class codes	PREDES
112	Item event reason codes	EMSEVT event H
113	Item event action taken codes	EMSEVT event H
112/113	Allowed combinations of item non-delivery action taken and item non-delivery reasons	EMSEVT
100	Consignment event codes	REDES

3.2 Catalogue of UPU standards

The Catalogue of UPU Standards contains a list of all published standards, each accompanied by a brief description. It also includes a list of “status P” work items, indicating projects that have been approved by the POC for development. The catalogue provides information on each standard’s document version and its current status within the UPU standards approval process.

<https://www.upu.int/UPU/media/upu/documents/Standards/Catalogue-of-UPU-standards.pdf>

3.3 UPU standards version histories

UPU standards go through defined development stages and receive new version numbers when fully updated. UPU Technical Standards, version history and UPU EDI Messaging Standards, version history are comprehensive registers maintained by the standards secretariat. Respectively, they document each version of the technical and EDI messaging standards, as well as providing a concise description of what has changed in each version.

<https://www.upu.int/UPU/media/upu/documents/Standards/UPU-Technical-Standards-version-history.pdf>

<https://www.upu.int/UPU/media/upu/documents/Standards/UPU-Messaging-Standards-version-history.pdf>

3.4 General information on UPU standards

This publication outlines the role of the SB within the UPU's organizational structure. It sets out the procedures governing the development and approval of UPU standards, including the methodologies for numbering and version control.

UPU standards are classified into distinct status categories, each reflecting the maturity, usage and expected evolution of the standard. The table below outlines these categories

Status	Short description	Expected usage	Scope of changes to be expected
P (Work item)	Need defined in a written document	Possibly preliminary tests	Very large
0 (Working draft)	Solution being developed, complete draft available	Tests, prototype	Large
1 (Tested draft standard)	Complete solution tested	Limited production or production	Small
2 (Approved UPU standard)	Standard widely used, technically operational	Production	Very small to none
S (Superseded standard)	Replaced by another more recent standard but still in use	Phasing out	None
W (Withdrawn standard)	Not used and no longer valid	None	None

Furthermore, this document outlines the mechanisms for the publication and ongoing maintenance of standards, presents the SB's policy on intellectual property rights (IPR) in relation to standardization activities, and summarizes the memoranda of understanding established with external standardization bodies such as the European Committee for Standardization and the International Organization for Standardization.

https://www.upu.int/UPU/media/upu/documents/Standards/GeneralInformationOnUpuStandards_1.pdf

3.5 UPU standards glossary

The UPU standards glossary provides definitions of key terms, acronyms, symbols and abbreviations used across UPU standards.

<https://www.upu.int/UPU/media/upu/documents/Standards/UPU-Standards-Glossary.pdf>

NOTE The definitions provided in the glossary apply only to those UPU standards that have been adapted to reference it, and then only where the individual standard concerned contains no replacement definition for a particular term. Where a term is defined both in the glossary and in an individual standard, the definition in the individual standard takes precedence.

3.6 Standards status report

The standards status report is a tool used to review the development of standards in order to plan further actions based on emerging business requirements and priorities. The SB reviews the report at least twice a year.

<https://www.upu.int/UPU/media/upu/documents/Standards/Standards-Status.xlsx>

Standards Status from SB 2025.2 effective:								2025-05-27			
Type	Std	Ref	Status	Last change		At this Status since	Title	Usage			
				SB/POC	Date			No. users	as of date (YYYYMM)	Cited in UPU regs ¹	
M	M10	M10-8	2	POC 2015.1	2015-04-27	2000-05-05	PRECON Message specification, Version 1.1	198	201403	Yes	
M	M12	M12-7	2	POC 2024.1	2024-04-22	2000-05-05	RESCON Message specification, Version 1.1	200	202403	Yes	
M	M13	M13-5	2	POC 2017.2	2017-10-17	2017-10-17	RESDES Message specification, Version 1.1	212	202403	Yes	
M	M33	M33-13	2	POC 2020.2	2020-12-02	2017-10-17	ITMATT V1 - Electronic communication of item information	196	202403		
M	M38	M38-7	2	POC 2021.1	2021-04-19	2021-04-19	International Money Orders – XML-MONORD 001 and XML-RESORD 001 messages	64	201403		
M	M40	M40-8	2	POC 2021.1	2021-04-19	2016-02-16	EMSEVT Message specification V3.0	207	202403		
M	M41	M41-7	2	2016.1	2016-02-16	2016-02-16	PREDES Message specification V2.1	203	201403		
M	M48	M48-8	2	POC 2024.1	2024-04-22	2024-04-22	CARDIT Message specification V2.1	174	202403	Yes	
M	M49	M49-7	2	POC 2024.1	2024-04-22	2024-04-22	RESBIT Message specification V1.1	75	202403	Yes	

3.7 An introduction to postal EDI exchanges

EDI messages are structured text files that follow a tagged delimited format. These files are designed to allow automated systems to reliably exchange data in a consistent and machine-readable way. The data contained within EDI messages is typically extracted from a local system, such as a postal operator's internal logistics or dispatch system, and then formatted into a standard message structure.

To ensure global compatibility and interoperability, postal EDI messages are based on widely recognized standards, specifically the United Nations rules for Electronic Data Interchange for Administration, Commerce and Transport (UN/EDIFACT) and/or Extensible Markup Language (XML).

For those seeking a comprehensive overview of how EDI functions within the postal domain, this publication provides a detailed explanation of the principles, message formats and operational context for implementing and managing EDI in international postal services.

<https://www.upu.int/UPU/media/upu/files/postalSolutions/programmesAndServices/standards/AnIntroductiontoPostalEDIexchanges.pdf>

4 Standards Board – organization and meetings

All POC members are welcome to take part in the SB. Observers and ad hoc observers are also able to participate, in line with the UPU General Regulations and article 3 of the POC Rules of Procedure. Requests for participation or observer status should be addressed to the standards secretariat, accompanied by a description of the requester's relevant expertise and proposed contributions.

Information regarding the SB and its working methods is provided in the publication *General information on UPU standards*, mentioned above. The SB convenes approximately three to four times per year, with meetings designed to accommodate both physical and virtual participation.

In addition to the main SB meetings, SB experts hold dedicated sessions three to four times per year to address specific technical and operational issues. SB experts are specialists (or their representatives) who contribute to the development, maintenance and implementation of UPU standards, particularly those related to international postal services and electronic data exchange. The outcomes of expert meetings are formally reported to the SB, whose members review the work completed, provide feedback, and agree on the appropriate next steps to advance the standards development process.

Ad hoc groups are also established as needed to focus on specific subjects or standards. These groups operate on a project basis, concentrating on clearly defined topics. Their findings and deliverables are typically presented first to the SB experts and then to the full SB for review.

4.1 Roles and responsibilities of participants

Participants in the SB and SB experts should actively contribute to the effective development and governance of UPU standards. To that end, they should endeavour to:

- be familiar with the standards approval process and the procedures governing the development of UPU standards, including key stages in a standard's life cycle, relevant document types, and review procedures;
- engage in the development, maintenance and approval of UPU technical and EDI messaging standards by contributing to discussions and decision making;
- review and assess proposals submitted by SB experts, ad hoc groups and other relevant bodies involved in standards-related work;
- provide feedback on proposals submitted to the SB by experts within their organization and, where possible, support their participation in SB expert meetings;
- contribute to setting priorities and strategic directions for standards development in alignment with UPU objectives and stakeholder needs;

- support the alignment of standards with operational practices, regulatory requirements and international frameworks to ensure relevance and interoperability;
- promote awareness and adoption of UPU standards within their own organization, encouraging implementation and integration into operational processes.

4.2 Documents and presentations

SB and SB expert meetings are, whenever possible, scheduled several months in advance. Meeting dates are determined on the basis of several factors, including the timing of POC sessions, Congresses and other key UPU events. Invitations are typically issued one month prior to the meeting. Meeting documents are generally requested no later than two weeks before the meeting (earlier if possible), to allow sufficient time for internal review and preparation and to ensure timely dissemination to SB members and participants.

Participants in the SB and SB experts are required to acknowledge and agree to comply with the obligations set out in the SB's IPR policy, including the duty to disclose any known IPR that, in their opinion, relate to or affect the standards being discussed, developed or approved at meetings or under the auspices of any groups working on the development of those standards.