

# DIN CEN/TS 15121-1:2011-03 (E)

Postal Services\_ - Hybrid Mail\_ - Part\_1: Secured electronic postal services (SePS) interface  
specification\_ - Concepts, schemas and operations; English version CEN/TS\_15121-1:2011

---

## Contents

Page

Foreword.....	5
Introduction .....	6
1 Scope .....	8
2 Normative references .....	9
2.1 UPU standards .....	9
2.2 Internet Engineering Task Force (IETF) documents .....	9
2.3 Organization for the Advancement of Structured Information Standards (OASIS).....	10
3 Terms and definitions .....	10
4 Symbols and abbreviations .....	13
5 Key SePS concepts .....	14
5.1 Authentication.....	14
5.2 Digital signature verification .....	15
5.3 Error handling .....	15
5.4 Event logging .....	15
5.5 Lifecycle management .....	16
5.6 Non-repudiation .....	16
5.7 PostMarking .....	16
5.8 Processing directives or options .....	17
5.9 Protection of confidentiality .....	17
5.10 Time stamping.....	17
5.11 Transaction handling .....	17
6 Overview of SePS operations.....	17
6.1 General.....	17
6.2 CheckIntegrity .....	18
6.3 Decrypt.....	19
6.4 Encrypt.....	19
6.4.1 General.....	19
6.4.2 Delegated Confidentiality Service.....	19
6.5 Locate .....	19
6.6 LogEvent.....	20
6.7 PostMark .....	20
6.8 RetrievePostalAttributes .....	20
6.9 RetrieveResults.....	20
6.10 RetrieveSummary .....	20
6.11 Sign .....	21
6.12 StartLifecycle .....	21
6.13 Verify .....	21
7 Common schema types used across SePS operations .....	22
7.1 Introduction .....	22
7.2 AccessScope and Scopes .....	22
7.3 ClaimedIdentity .....	23
7.4 ClientApplication .....	26
7.5 ContentIdentifier .....	26
7.6 ContentMetadata.....	26
7.7 EncryptResponse Option.....	27
7.8 Event .....	29
7.9 OriginalContentType .....	29
7.10 ParticipatingPartyType.....	30

7.11	PostMarkedReceipt .....	31
7.12	PostMarkedReceipt (XMLDSIG considerations).....	36
7.13	QualifiedDataType .....	38
7.14	SignatureInfoType .....	38
7.15	SignaturePolicyIdentifier .....	39
7.16	TransactionKeyType .....	40
7.17	TransactionStatus and TransactionStatusDetailType .....	41
7.18	ValidOperation .....	41
7.19	ValidOption .....	42
7.20	Version.....	42
7.21	X509InfoType .....	42
8	Detailed specification of SePS operations .....	44
8.1	Introduction.....	44
8.2	CheckIntegrity.....	44
8.2.1	CheckIntegrity Edit Rules Summary .....	44
8.2.2	CheckIntegrityOptions Request Flags .....	45
8.2.3	CheckIntegrity Request Elements .....	46
8.2.4	CheckIntegrity Response Object .....	48
8.3	Decrypt .....	51
8.3.1	Decrypt Edit Rules Summary .....	51
8.3.2	DecryptOptions Request Flags .....	52
8.3.3	Decrypt Request Elements .....	53
8.3.4	Decrypt Response Object.....	53
8.4	Encrypt .....	54
8.4.1	Encrypt Edit Rules Summary .....	54
8.4.2	EncryptOptions Request Flags .....	55
8.4.3	Encrypt Request Elements .....	56
8.4.4	Encrypt Response Object.....	57
8.5	Locate .....	58
8.5.1	Locate Edit Rules Summary .....	58
8.5.2	LocateOptions Request Flags.....	58
8.5.3	Locate Request Elements.....	59
8.5.4	Locate Response Object.....	60
8.6	LogEvent .....	60
8.6.1	LogEvent Edit Rules Summary .....	60
8.6.2	LogEventOptions Request Flags .....	61
8.6.3	LogEvent Request Elements .....	61
8.6.4	LogEvent Response Object.....	62
8.7	PostMark.....	62
8.7.1	PostMark Edit Rules Summary .....	62
8.7.2	PostMarkOptions Request Flags .....	63
8.7.3	Postmark Request Elements .....	63
8.7.4	PostMark Response Object.....	65
8.8	RetrievePostalAttributes — RetrievePostalAttributes Edit Rules Summary .....	66
8.9	RetrieveResults .....	67
8.9.1	RetrieveResults Edit Rules Summary .....	67
8.9.2	RetrieveResultsOptions Request Flags .....	68
8.9.3	RetrieveResults Request Elements .....	69
8.9.4	RetrieveResults Response Object.....	70
8.10	RetrieveSummary .....	73
8.10.1	RetrieveSummary Edit Rules Summary .....	73
8.10.2	RetrieveSummaryOptions Request Flags.....	73
8.10.3	RetrieveSummary Request Elements .....	73
8.10.4	RetrieveSummary Response Object .....	74
8.11	Sign .....	75
8.11.1	Sign Edit Rules Summary.....	75
8.11.2	SignOptions Request Flags.....	76
8.11.3	Sign Request Elements.....	77
8.11.4	Sign Response Object .....	78

8.12	<b>StartLifeCycle</b> .....	79
8.12.1	<b>StartLifecycle Edit Rules Summary</b> .....	79
8.12.2	<b>StartLifecycleOptions Request Flags</b> .....	79
8.12.3	<b>StartLifecycle Request Elements</b> .....	80
8.12.4	<b>StartLifecycle Response Object</b> .....	80
8.13	<b>Verify</b> .....	81
8.13.1	<b>Verify Edit Rules Summary</b> .....	81
8.13.2	<b>VerifyOptions Request Flags</b> .....	81
8.13.3	<b>Verify Request Elements</b> .....	83
8.13.4	<b>Verify Response Object</b> .....	87
<b>Annex A (normative) SePS XML Schema V1.15</b> .....		89
<b>Annex B (normative) Web Service Description Language (WSDL) V1.15</b> .....		108
<b>Annex C (informative) Examples</b> .....		117
C.1	<b>General</b> .....	117
C.2	<b>Standalone PostMarkedReceipt over a verified signature</b> .....	117
C.3	<b>Standalone &lt;PostMarkedReceipt&gt; over data when using PostMark operation</b> .....	120
C.4	<b>Embedded &lt;PostMarkedReceipt&gt; over a verified signature</b> .....	122
C.5	<b>RequesterSignature over TransactionKey for any operation in protected Lifecycle</b> .....	125
C.6	<b>RequesterSignature over OriginalContent when used in a CheckIntegrity operation</b> .....	126
<b>Annex D (informative) European and international standards inter-relationships and evolution</b> .....		128
<b>Annex E (informative) Relevant intellectual property rights (IPR)</b> .....		129
E.1	<b>Introduction</b> .....	129
E.2	<b>USPS Patents</b> .....	130
<b>Bibliography</b> .....		131