

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