

ISO 12855:2022-04 (E)

Electronic fee collection - Information exchange between service provision and toll charging

Contents		Page
Foreword		v
Introduction		vi
1	Scope	1
2	Normative references	1
3	Terms and definitions	2
4	Symbols and abbreviated terms	3
5	Architectural concepts and information exchanges	4
5.1	Main roles in the toll charging environment	4
5.2	Information exchange between toll charging and provision	5
5.2.1	General	5
5.2.2	Basic protocol mechanisms	7
5.2.3	Exchange trust objects functionality	8
5.2.4	Originating and providing EFC context data functionality	8
5.2.5	Provide contract issuer information functionality	9
5.2.6	Manage exception list functionality	9
5.2.7	Report toll declarations functionality	10
5.2.8	Report billing details functionality	10
5.2.9	Payment settlement functionality	11
5.2.10	Exchange enforcement data functionality	12
5.2.11	Process user complaints functionality	13
5.2.12	Exchange quality assurance parameters functionality	13
5.2.13	Provide media settlement data functionality	14
6	Computational specification	14
6.1	Overview	14
6.2	Application protocol data units	17
6.2.1	General	17
6.2.2	Application protocol control information (APCI)	19
6.2.3	Application data units	20
6.2.4	ADU identification	20
6.2.5	ADU action code	21
6.2.6	User identification	21
6.3	RequestAdu data structure	22
6.4	AckAdu data structure	25
6.5	StatusAdu data structure	32
6.6	TrustObjectAdu data structure	32
6.7	EfcContextDataAdu data structure	39
6.7.1	General	39
6.7.2	GeneralContextData type	40
6.7.3	MeshedContextData type	57
6.7.4	Common data structures	66
6.8	ContractIssuerListAdu data structure	88
6.9	ExceptionListAdu data structure	90
6.10	ReportAbnormalObeAdu data structure	94
6.11	TollDeclarationAdu data structure	95

6.12	BillingDetailsAdu data structure	99
6.12.1	General	99
6.12.2	UsageList data type	101
6.12.3	AssociatedEventData data type	111
6.13	PaymentClaimAdu data structure	117
6.14	PaymentAnnouncement Adu data structure	119
6.15	ProvideUserDetailsAdu data structure	121
6.16	ReportCccEventAdu data structure	125
ISO 12855:2022(E) 6.17 ProvideUserIdListAdu data structure		126
6.18	Report QA data structure	127
6.19	User complaint data structure	128
6.20	User complaint response data structure	129
6.21	Media settlement data structure	131
7	Transfer mechanisms and supporting functions	132
7.1	Transfer mechanisms	132
7.2	Secure communication channel	133
7.3	Supporting functions	133
7.3.1	Communication services	133
7.3.2	Authenticators	133
7.3.3	Signature and hash algorithms	135
7.3.4	Keys encryption	135
Annex A (normative)Datatypespecifications		136
Annex B (informative) Example enforcement process applyingstandardized APDU exchanges		137
Annex C (informative)Exampleofdataflowsinatolldomain		142
Annex D (informative) Example of rounding differences		145
Annex E (informative) Example of fee calculation using EFC context data		149
Bibliography		153