

# ISO 12855:2022-04 (E)

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

---

<b>Contents</b>		<b>Page</b>
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