

ISO 18440:2016-11 (E)

Space data and information transfer systems - Space link extension - Internet protocol for transfer services

Contents	Page
1 INTRODUCTION	1-1
1.1 PURPOSE.....	1-1
1.2 SCOPE.....	1-1
1.3 APPLICABILITY	1-2
1.4 RATIONALE.....	1-2
1.5 DOCUMENT STRUCTURE	1-2
1.6 DEFINITIONS, NOMENCLATURE, AND CONVENTIONS.....	1-4
1.7 REFERENCES	1-8
2 DESCRIPTION OF THE INTERNET SLE PROTOCOL	2-1
2.1 INTRODUCTION	2-1
2.2 ARCHITECTURAL MODEL	2-1
2.3 AUTHENTICATION LAYER	2-3
2.4 DATA ENCODING LAYER	2-4
2.5 TRANSPORT MAPPING LAYER.....	2-5
2.6 INTERFACES	2-11
2.7 SECURITY ASPECTS OF THE INTERNET SLE PROTOCOL	2-22
3 ISPI MESSAGES AND PROCEDURES	3-1
3.1 AUTHENTICATION LAYER.....	3-1
3.2 DATA ENCODING LAYER	3-3
3.3 TRANSPORT MAPPING LAYER.....	3-4
4 TML STATE TABLE	4-1
4.1 INTRODUCTION	4-1
4.2 NOTATION.....	4-1
4.3 STATES.....	4-2
4.4 EVENTS	4-2
4.5 PREDICATES	4-4
4.6 ACTIONS	4-4
4.7 STATE TABLE	4-6
ANNEX A TML DIAGNOSTIC CODES (NORMATIVE)	A-1
ANNEX B DIFFERENCES WITH EARLIER IMPLEMENTATIONS (INFORMATIVE)	B-1
ANNEX C INDEX TO DEFINITIONS (INFORMATIVE)	C-1
ANNEX D ACRONYMS (INFORMATIVE)	D-1
ANNEX E INFORMATIVE REFERENCES (INFORMATIVE)	E-1

<u>Figure</u>	<u>Page</u>
1-1 SLE Services and SLE API Documentation	1-3
2-1 ISP1 Architecture Model	2-2
3-1 ASN.1 Type for Generation of ‘the Protected’	3-2
3-2 ASN.1 Type for the Credentials Parameter	3-3
3-3 Layout of a TML Message	3-4
3-4 Layout of a TML Context Message	3-5

Table

2-1 Primitives of the AL Interface	2-11
2-2 Parameters of the Primitive AL-SLE-PDU	2-11
2-3 Primitives of the DEL Interface	2-12
2-4 Parameters of the Primitive DEL-SLE-PDU	2-12
2-5 Primitives of the TML Data Transfer Interface	2-12
2-6 Parameters of the Primitive TML-SLE-PDU	2-13
2-7 Primitives of the TML Association Control Interface	2-13
2-8 Parameters of the Primitive TML-CONNECT	2-13
2-9 Parameters of the Primitive TML-PEER-ABORT	2-14
2-10 Parameters of the Primitive TML-PROTOCOL-ABORT	2-15
2-11 Primitives of the TML Listener Interface	2-15
2-12 Parameters of the Primitive TML-START-LISTEN	2-15
2-13 Parameters of the Primitive TML-STOP-LISTEN	2-16
2-14 Primitives Used for the TCP-Interface	2-19
2-15 Parameters of the Primitive TCP-PASSIVE-OPEN	2-19
2-16 Parameters of the Primitive TCP-CONNECT	2-20
2-17 Parameters of the Primitive TCP-DATA	2-21
3-1 TML Message Type Identifiers	3-5