

ISO 26143:2021-06 (E)

Space data and information transfer systems - Space link extension (SLE) - Return operational control fields service specification

CONTENTS

<u>Section</u>	<u>Page</u>
1 INTRODUCTION	1-1
1.1 PURPOSE OF THIS RECOMMENDED STANDARD	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	1-5
1.7 REFERENCES	1-14
2 DESCRIPTION OF THE ROCF SERVICE	2-1
2.1 OVERVIEW	2-1
2.2 SPACE LINK EXTENSION REFERENCE MODEL	2-2
2.3 SERVICE MANAGEMENT	2-3
2.4 ARCHITECTURE MODEL—FUNCTIONAL VIEW	2-4
2.5 ARCHITECTURE MODEL—CROSS SUPPORT VIEW	2-7
2.6 FUNCTIONAL DESCRIPTION	2-8
2.7 OPERATIONAL SCENARIO	2-18
2.8 SECURITY ASPECTS OF THE SLE ROCF TRANSFER SERVICE	2-19
3 ROCF SERVICE OPERATIONS	3-1
3.1 GENERAL CONSIDERATIONS	3-1
3.2 ROCF-BIND	3-15
3.3 ROCF-UNBIND	3-22
3.4 ROCF-START	3-26
3.5 ROCF-STOP	3-34
3.6 ROCF-TRANSFER-DATA	3-36
3.7 ROCF-SYNC-NOTIFY	3-40
3.8 ROCF-SCHEDULE-STATUS-REPORT	3-44
3.9 ROCF-STATUS-REPORT	3-48
3.10 ROCF-GET-PARAMETER	3-51
3.11 ROCF-PEER-ABORT	3-56
4 ROCF PROTOCOL	4-1
4.1 GENERIC PROTOCOL CHARACTERISTICS	4-1
4.2 ROCF SERVICE PROVIDER BEHAVIOR	4-4

CONTENTS (continued)

<u>Section</u>	<u>Page</u>
ANNEX A DATA TYPE DEFINITIONS (NORMATIVE)	A-1
ANNEX B PRODUCTION STATUS (NORMATIVE)	B-1
ANNEX C CONFORMANCE MATRIX (NORMATIVE)	C-1
ANNEX D INDEX TO DEFINITIONS (INFORMATIVE)	D-1
ANNEX E ACRONYMS (INFORMATIVE)	E-1
ANNEX F INFORMATIVE REFERENCES (INFORMATIVE)	F-1

Figure

1-1 SLE Services Documentation	1-4
2-1 Return Frame Processing SLE-FG	2-4
2-2 ROCF Service Production and Provision	2-7
2-3 Example of the Management and Provision of ROCF Service	2-8
2-4 Simplified ROCF Service Provider State Transition Diagram.....	2-11
2-5 Communications Realization of ROCF Service	2-13
2-6 Buffers and Delivery Modes.....	2-18
B-1 ROCF Production Status Transitions.....	B-1

Table

2-1 ROCF Operations	2-9
3-1 Setting of ROCF Service Configuration Parameters	3-6
3-2 ROCF-BIND Parameters	3-16
3-3 ROCF-UNBIND Parameters	3-23
3-4 ROCF-START Parameters	3-27
3-5 ROCF-STOP Parameters	3-34
3-6 ROCF-TRANSFER-DATA Parameters	3-36
3-7 ROCF-SYNC-NOTIFY Parameters	3-40
3-8 ROCF-SCHEDULE-STATUS-REPORT Parameters	3-45
3-9 ROCF-STATUS-REPORT Parameters	3-48
3-10 ROCF-GET-PARAMETER Parameters.....	3-51
3-11 ROCF Parameters	3-53
3-12 ROCF-PEER-ABORT Parameters	3-56
4-1 Provider Behavior	4-6
4-2 Event Description References.....	4-12
4-3 Predicate Descriptions	4-12
4-4 Boolean Flags	4-13
4-5 Compound Action Definitions.....	4-13
B-1 Production Status Changes and Notifications.....	B-2
B-2 Effect of Production Status on Operations	B-3
C-1 Conformance Matrix for ROCF Service (Operations)	C-1
C-2 Conformance Matrix for ROCF Service (Other Requirements).....	C-2