ISO/IEC 4396-9:2023-12 (E)

Telecommunications and information exchange between systems - Recursive inter-network architecture - Part 9 : Error and flow control protocol

Contents

Page

Foreword ..... **v**

Introduction ..... **vi**

1 Scope **1**

2 Normative references **1**

3 Terms and definitions **1**

4 Overview of the EFCP **2**

5 Role of EFCP within the IPC process **3**
5.1 General 3
5.2 Description of the Data Transfer Protocol (DTP) Task 3
5.3 DTP user service API definition 5
5.3.1 Read API or read immediate invoked 5
5.3.2 Read/Read immediate action 5
5.3.3 Write action 5
5.4 Description of the DTCP task 5
5.4.1 General 5
5.4.2 Retransmission control 6
5.4.3 Flow control 6

6 Common elements of the DTP and DTCP tasks **7**
6.1 Abstract and encoding rules 7
6.2 DIF-wide data 7
6.2.1 General 7
6.2.2 Constants 7
6.2.3 Data structures 8
6.3 Data Transfer Application Entity (DTAE) constants 8
6.4 PDU format 8

7 Detailed description of the DTP task **9**
7.1 General 9
7.2 DTP State Vector — DTP-SV 9
7.3 Data transfer PDU 11
7.4 Common procedures 11
7.5 API events 11
7.5.1 General 11
7.5.2 Event — SDU delivered from (N)-port-id 11
7.5.3 Event — PDU delivered from RMT 13
7.5.4 Event — Receiver inactivity timer timeout 16
7.5.5 Event — Sender inactivity timer timeout 16
7.5.6 Event — A-Timer timeout 16

8 Detailed description of the DTCP task **17**
8.1 General 17
8.2 Types of control PDUs 17

9 Detailed description of the DTCP task **17**
9.1 General 17
9.2 Types of control PDUs 17
9.3 DTCP state vector 18
9.4 Syntax of PDUs 20
9.4.1 General 20
9.4.2 Ack/Flow control PDUs 20

9.4.3 Selective Ack PDU 21
9.4.4 Control Ack PDU 22
9.4.5 Rendezvous PDU 22
9.5 Detailed specification of common functions 23
9.6 Event processing 23
9.6.1 Event — SVUPdate(PDU.SequenceNumber) occurred 23
9.6.2 Event — Ack/Nack flow control PDUs arrived 24
9.6.3 Event — Selective Ack 25
9.6.4 Event — Rendezvous PDU 25
9.6.5 Event — Retransmission Timer 26
9.6.6 Event — Sending Rate Timer timeout 27
9.6.7 Event — Rendezvous Timer 27
9.6.8 Event — Rate-based Flow Control's buffer state change 27
Annex A (informative) **List of DTP and DTCP policies** **29**
Bibliography **31**