ISO/IEC 8878:1992-12 (E)

Information technology; telecommunications and information exchange between systems; use of X.25 to provide the OSI connection-mode network service

Contents

Page

Foreword IV

Introduction V

1. Scope 1

2. Normative references 2
2.1 Identical Recommendations I International Standards 2
2.2 Paired Recommendations I International Standards equivalent in technical content 2
2.3 Additional references 2

3. Definitions 2
3.1 Reference Model definitions 2
3.2 Service Conventions definitions 3
3.3 Network Service definitions 3
3.4 X.25 definitions 3
3.5 X.96 definitions 3

4. Abbreviations 3
4.1 Network Service abbreviations 3
4.2 X.25 abbreviations 4

5. Overview 4
5.1 Elements oftheX.25/PLP-1 984 used to Support the OSI CONS 4
5.2 General Operation oftheX.25/PLP-1984forsupportingtheOSI CONS 5

6. Network connection establishment phase 7
6.1 Primitive/Parameter and packet/field relationships 7
6.2 Procedures 7

7. Network connection release phase 15
7.1 Primitive/Parameter and packet/field relationships 15
7.2 Procedures 16

8. Data transfer phase — Data transfer service 17
8.1 Primitive/Parameter and packet/field relationships 17
8.2 Procedures 17

9. Data transfer phase — Receipt confirmation service 18
9.1 Primitive and packet/field relationships 18
9.2 Procedures 18

10. Data transfer phase — Expedited data transfer service 19
10.1 Primitive/Parameter and packet/field relationships 19
10.2 Procedures 19

11. Data transfer phase — Reset service 19
11.1 Primitive/Parameter and packet/field relationships 19
11.2 Procedures 19

12. Response to protocol violations 21

13. Conformance 22
13.1 Conformance requirements 22
13.2 Optional features 22

Annex A: X.25 (1980) Subnetwork Dependent Convergence Protocol 23
A.1 Introduction 23
A.2 Scope 23
A.3 Abbreviations 24
A.4 Overview of the protocol 24
A.5 Protocol mechanisms 26
A.6 Protocol description 38
A.7 Protocol encoding in X.25 packets 48

Annex B: Classification 54
B.1 Classification of systems 54
B.2 Functionality of classes 54
B.3 Scenarios 54
B.4 Procedures for selecting class of operation 55
B.5 Interworking by relay system 55

Annex C: Subnetwork Convergence Protocol for Use With X.25 Permanent Virtual Circuits 58
C.1 Introduction and scope 58
C.2 Overview 58
C.3 Abbreviations 58
C.4 Protocol mechanisms 58
C.5 Protocol encoding for NC establishment and release 60

Annex D; Protocol Implementation Conformance Statement Proforma 62
D.1 Introduction 62
D.2 Scope 62
D.3 Normative references 62
D.4 Definitions 62
D.5 Abbreviations 63
D.6 Protocol Implementation Conformance Statement Proforma 64
D.7 Modified PICS requirements for ISO/IEC 8208 76

Annex E: Additional Considerations of CONS Primitives 83
E.1 Introduction 83
E.2 Environment for X.25/PLP operation 83

Annex F: Use of X.25/PLP NPAI 85
F.1 Introduction 85
F.2 Obtaining an SNPA address 85
F.3 Examples of Network Address encoding 85

Annex Q; Transit Delay Calculations 87

Annex H: Example of Priority Negotiation 89

Annex I: Differences between Recommendation X.223 and ISO/IEC 8878 91