

# Contents

## 1 Introduction

1.1 Definition . . . . .	1-1
1.2 Background . . . . .	1-2
1.3 Reason(s) for Issue 2 . . . . .	1-2
1.4 Reason(s) for Issue 1 . . . . .	1-3
1.5 Customer Perspective . . . . .	1-3
1.6 Terminology . . . . .	1-4
1.7 Requirements Terminology . . . . .	1-4
1.8 Requirement Labeling Conventions . . . . .	1-5
1.8.1 Numbering of Requirement and Related Objects . . . . .	1-5
1.8.2 Requirement, Conditional Requirement, and Objective Identification . . . . .	1-6

## 2 Interface Operations

2.1 Main Interface Operations . . . . .	2-1
2.2 Affirmative and Negative Acknowledgments . . . . .	2-2
2.3 Errors and Retransmission . . . . .	2-3
2.4 Backup . . . . .	2-5

## 3 Signaling Protocol

3.1 First Layer (Physical Layer) . . . . .	3-1
3.2 Second Layer (Data Link Layer) . . . . .	3-2
3.3 Third Layer (Presentation Layer) . . . . .	3-3

## 4 Categories of Messages

4.1 Call Information (CI) Message . . . . .	4-1
4.2 Special Capabilities Messages: Message Waiting Indicator (MWI) Control Request (Presentation Layer Messages) . . . . .	4-6
4.3 Control Type Messages . . . . .	4-8
4.3.1 Synchronization/Idle (SYN) . . . . .	4-9
4.3.2 Affirmative Acknowledgment (ACKN) . . . . .	4-9
4.3.3 Negative Acknowledgment (NAKN) . . . . .	4-10
4.3.4 Enquiry (ENQ) . . . . .	4-11
4.3.5 Wait Before Transmit Affirmative Acknowledgment or WACK (DLE;) . . . . .	4-11
4.3.6 Termination Interrupt (EOT) . . . . .	4-11
4.3.7 Mandatory Termination (DEOT) . . . . .	4-12
4.3.8 Start of Text (STX) . . . . .	4-12
4.3.9 End of Text (ETX) . . . . .	4-12
4.3.10 Error Message (ERR) . . . . .	4-13

## 5 Internal Call Processing and Transmission

5.1 Connections . . . . .	5-1
---------------------------	-----

5.2 CLASS of Service . . . . .	5-1
5.3 Charge Treatment . . . . .	5-1
5.4 Common Channel Signaling (CCS) . . . . .	5-1
5.5 Transmission . . . . .	5-1
<b>6 Administration</b>	
6.1 Service Changes . . . . .	6-1
6.1.1 Client Company . . . . .	6-1
6.1.2 Customer . . . . .	6-1
6.2 Installation and Support . . . . .	6-1
6.2.1 Backup . . . . .	6-1
6.3 Craftsperson/SPCS Interface . . . . .	6-3
6.4 Traffic Measurements . . . . .	6-4
6.5 Maintenance Measurements . . . . .	6-5
<b>7 Performance and Reliability</b>	
<b>8 Maintenance</b>	
8.1 Automated Maintenance . . . . .	8-1
8.2 Manual Maintenance . . . . .	8-1
<b>9 Limitations and Restrictions</b>	
<b>10 Timing and Tolerances</b>	
<b>Appendix A: Timers and Counters</b>	
A.1 Timers and Intervals . . . . .	A-1
A.2 Counters . . . . .	A-2
A.3 Other Office Parameters . . . . .	A-3
A.4 Traffic Measurements . . . . .	A-3
<b>Appendix B: Traffic Measurement Quantities</b>	
B.1 Quick Reference . . . . .	B-2
<b>Appendix C: References</b>	
Reference Note . . . . .	C-2
To Contact Telcordia Customer Service or to Order Documents . . . . .	C-2
To Order Documents From Within Telcordia (Employees Only) . . . . .	C-2
<b>Appendix D: Glossary and Acronyms</b>	
Glossary . . . . .	D-1
Acronyms . . . . .	D-2
<b>Requirement-Object Index</b>	

## List of Figures

Figure 1-1	Environment of the Dedicated Data Link Interface . . . . .	1-1
Figure 1-2	Multiple Data Message Format for CI and SC Messages . . . . .	1-2
Figure 2-1	Retransmission . . . . .	2-4
Figure 6-1	Dialed Backup of a Multipoint Analog Circuit . . . . .	6-3
Figure 10-1	Call Termination Application Delay . . . . .	10-2



## List of Tables

Table 4-1	Potential Corresponding CI Message Formats . . . . .	4-1
Table 4-2	Description of Parameter Type Words . . . . .	4-3
Table 4-3	Summary of Control Type Messages . . . . .	4-8
Table A-1	Control Type Message Timers . . . . .	A-1
Table A-2	Counters in Support of Data Link Interface . . . . .	A-2
Table A-3	Other Office Parameters . . . . .	A-3
Table A-4	Traffic Measurements . . . . .	A-3
Table B-1	Traffic Measurement Quantities . . . . .	B-1
Table B-2	Data Line Interface Message Summary . . . . .	B-2