

Contents

1 Introduction

1.1 Reasons for SR-5202, Issue 5	1-1
1.2 Release Compatibility	1-1

2 GDI TCP/IP Transport Protocol Specifications

2.1 TCP/IP Connection	2-1
2.2 Message Structure	2-1
2.2.1 Data	2-3
2.2.2 Keep Alive Request	2-4
2.2.3 Keep Alive Response	2-4
2.2.4 Error	2-5
2.2.5 Inhibit	2-5
2.2.6 Uninhibit	2-5
2.2.7 Status Request	2-6
2.2.8 Status Response	2-6
2.3 Multiple Circuit Connections	2-7
2.4 Security Implementation	2-9
2.5 Inhibit Protocol	2-9
2.5.1 General Information - Important	2-9
2.5.2 Sample Flow of Inhibit Protocol Messages	2-11
2.5.3 Virtual Circuit States	2-12
2.5.4 Inhibit Message	2-13
2.5.5 Uninhibit Message	2-13
2.5.6 Status Request Message	2-14
2.5.7 Status Response Message	2-14
2.5.8 Rules for Resolving Status Conflict	2-15
2.5.9 Errors and Possible Problems	2-17

3 Data Message Specification

3.1 Basis for Specification	3-1
3.2 TCAP Header Specification	3-1
3.3 General Component Specifications	3-3
3.4 Error Codes for Return Error Response Messages	3-5
3.5 Specific Generic Data Interface Messages	3-6
3.5.1 GetData	3-6
3.5.2 SendData	3-7
3.5.3 InvokeApp	3-8

4 Parameter Specifications

4.1 GetData Parameters	4-1
4.1.1 ServiceKey	4-1
4.1.2 SecurityIdentifier	4-1

4.1.3 DataElementList	4-2
4.1.4 ResultType	4-2
4.1.5 DataElementBlock	4-2
4.2 SendData Parameters	4-5
4.2.1 ServiceKey	4-5
4.2.2 SecurityIdentifier	4-5
4.2.3 ResultType	4-5
4.2.4 DataElementBlock	4-6
4.3 InvokeApp Parameters	4-7
4.3.1 ApplicationName	4-7
4.3.2 ActionID	4-7
4.3.3 SecurityIdentifier	4-8
4.3.4 InvokeAppReq	4-8
4.3.5 InvokeAppResp	4-9

5 Error Handling

5.1 Lack of Response	5-1
5.2 Return Error Component	5-1
5.3 Return Result Component and Application Errors	5-3

Appendix A: ASN.1 TCAP Message Definition

Appendix B: Encoding a GDI GetData Request

Appendix C: Encoding a GDI SendData Request

Appendix D: Encoding a GDI InvokeApp Request

Appendix E: Connection Options

Appendix F: References

Appendix G: Glossary

List of Figures

Figure 2-1	Redundant Connections Between External System and ISCP	2-8
Figure 2-2	Sample Flow	2-11

List of Tables

Table 2-1	Low Level Message Format	2-1
Table 2-2	Data Message Format	2-3
Table 2-3	Keep Alive Request Message Format	2-4
Table 2-4	Keep Alive Response Message Format	2-4
Table 2-5	Error Message Format	2-5
Table 2-6	Link Status Synchronization Actions	2-16
Table 3-1	TCAP Header Specification	3-2
Table 3-2	TCAP Message Types	3-2
Table 3-3	TCAP Invoke Component Specification	3-3
Table 3-4	TCAP Return Result Component Specification	3-4
Table 3-5	TCAP Return Error Component Specification	3-4
Table 3-6	Operation Code Specification	3-5
Table 3-7	TCAP Encoding of the Return Error Response Message	3-5
Table 4-1	BCD Encoding of Information Digits	4-4
Table 4-2	Encoding of Digits Octet String	4-4
Table 5-1	Return Error Codes	5-2
Table B-1	GetData Request Data Message	B-1
Table B-2	GetData Request Hexadecimal Representation	B-2
Table B-3	GDI Error Message - Error in GDI Header	B-2
Table B-4	GetData Return Error Response Message	B-3
Table B-5	GetData Return Error Response Hexadecimal Representation	B-4
Table B-6	GetData Response Message	B-4
Table B-7	GetData Return Result Hexadecimal Representation	B-6
Table C-1	SendData Request Data Message	C-1
Table C-2	SendData Request Hexadecimal Representation	C-5
Table C-3	GDI Error Message - Error in GDI Header	C-5
Table C-4	SendData Return Error Response Message	C-6
Table C-5	SendData Return Error Response Hexadecimal Representation	C-6
Table C-6	SendData Response Message	C-7
Table C-7	SendData Return Result Hexadecimal Representation	C-10
Table D-1	InvokeApp Request Data Message	D-1
Table D-2	InvokeApp Request Hexadecimal Representation	D-3
Table D-3	InvokeApp Response Message	D-3
Table D-4	InvokeApp Response Hexadecimal Representation	D-5
Table D-5	InvokeApp Conversational Response Message	D-5
Table D-6	InvokeApp Conversational Response Hexadecimal Representation	D-7
Table E-1	Connection Options/Restrictions	E-1