

Contents

Generic Requirements Notice of Disclaimer	iii
List of Figures	ix
List of Tables	xi
Preface	xiii
The Telcordia Technologies GR Process	xiii
About GR-283-CORE	xiii
Funders of GR-283-CORE, Issue 3, are:	xiii
Relative Maturity Level	xiv
GR-283-CORE Plans	xiv
To Submit Comments	xiv
1 Introduction	
1.1 Definitions	1-1
1.1.1 Message Storage and Retrieval (MSR) Systems	1-1
1.1.2 Simplified Message Desk Interface (SMDI)	1-1
1.2 Reason(s) for Issue 3	1-2
1.3 Background	1-2
1.3.1 Terminology	1-2
1.4 High-Level Feature Description of MSR Systems	1-3
1.5 Requirements Terminology	1-4
1.6 Requirement Labeling Conventions	1-5
1.6.1 Numbering of Requirement and Related Objects	1-5
1.6.2 Requirement, Conditional Requirement, and Objective Identification	1-5
2 Physical Interface Requirements	
3 Signaling Interface Requirements	
3.1 SMDI Requirements	3-1
3.1.1 Call Termination and Distribution to an MSR System	3-2
3.1.2 Call History on Calls Terminated to an MSR System	3-3
3.1.3 MWI Control by an MSR System	3-8
3.1.3.1 MWI Messages	3-8
3.1.3.2 Successful Attempts	3-9
3.1.3.3 Unsuccessful Attempts	3-10
3.1.4 Message Waiting Notification to Subscriber	3-12
3.1.5 Message Entry and Retrieval by a Subscriber	3-12
3.2 Error Treatment and Abnormal Events	3-12
3.3 Internal Call-Processing Controls	3-13
3.3.1 CLASS of Service/Configuration	3-13
3.3.2 Screening	3-13

3.3.3 Other Considerations	3-13
3.4 Generic Data Message Transport (GDMT)	3-14
3.4.1 SMDI Generic Data Message Transport Command	3-15
3.4.1.1 GDMT Request	3-16
3.4.1.2 GDMT Response	3-17
3.4.2 GDMT Structure Formats	3-17
3.4.3 GDMT Parameter Formats	3-19
3.4.4 Generic Data Message Structure	3-20
3.4.5 GDMT Delivery Parameters and Structures	3-21
3.4.5.1 Delivery Mode Parameter	3-21
3.4.5.2 Transport Format Parameter	3-21
3.4.5.3 Message Retry Parameter	3-22
3.4.5.4 MSR ID Parameter	3-22
3.4.5.5 Transaction ID Parameter	3-23
3.4.5.6 Pilot DN Parameter	3-23
3.4.5.7 Broadcast Type Parameter	3-24
3.4.5.8 DN List Parameter	3-25
3.4.5.9 Broadcast Range Parameter	3-26
3.4.5.10 Subscriber Type Parameter	3-26
3.4.5.11 Dial Tone Type Parameter	3-28
3.4.5.12 Open Switch Interval Parameter	3-28
3.4.5.13 Line Reversal Parameter	3-29
3.4.5.14 Ping Ring Parameter	3-29
3.4.5.15 Other Ring Type Parameter	3-30
3.4.5.16 Subscriber Alerting Signal (SAS) Parameter	3-31
3.4.5.17 Other SAS Type Parameter	3-31
3.4.5.18 CPE Alerting Signal Parameter	3-32
3.4.5.19 On-Hook Alerting Signal Type Structure	3-33
3.4.5.20 Off-Hook Alerting Signal Type Structure	3-34
3.4.6 Summary of GDMT Request Parameters and Structures	3-35
3.4.7 SPCS Response Messages to the MSR	3-37
3.4.7.1 MSRID Parameter	3-37
3.4.7.2 Transaction ID Parameter	3-38
3.4.7.3 Result Type Parameter	3-38
3.4.7.4 Broadcast Type Parameter	3-39
3.4.7.5 DN List Parameter	3-40
3.4.7.6 Broadcast Range Parameter	3-41
3.4.8 Summary of SPCS GDMT Response Parameters	3-42
3.4.8.1 Service Information (Content)	3-43

4 Operations and Performance Requirements

4.1 Operations	4-1
4.1.1 Memory Administration/Subscription Parameters	4-1
4.1.1.1 Subscription Parameters per SMDI Data Link	4-1
4.1.1.2 SPCS Parameters	4-2
4.1.1.3 Subscriber DN Parameters	4-2

4.1.1.4 MSR System Parameters	4-2
4.2 SPCS Message Handling Requirements	4-3
4.3 Traffic Measurements	4-4
4.3.1 SPCS Traffic Measurements	4-4
4.3.2 MLHG Traffic Measurements	4-4
4.3.3 SMDI Link Traffic Measurements	4-5
4.4 Flow Control	4-7

Appendix A: A Flow Control Implementation

A.1 DTE Guidelines for Flow Control	A-1
A.2 Supplemental Discussions	A-3
A.2.1 DTE-to-DTE (End-to-End) Flow Control	A-3
A.2.2 SPCS DTE Buffer Sizes and Operation	A-4
A.2.2.1 Outgoing Message Buffer	A-4
A.2.2.2 Incoming Message Buffer	A-6
A.3 ITU-T V-Series Modem Standards	A-7
A.4 Example Sizing Model	A-7

Appendix B: References

Reference Note	B-2
To Contact Telcordia Customer Service or to Order Documents	B-2
To Order Documents From Within Telcordia (Employees Only)	B-2

Appendix C: Acronyms

Requirement-Object Index

List of Figures

Figure 3-1	Call History Message Format	3-3
Figure 3-2	OP or RMV Message Format	3-9
Figure 3-3	BLK or INV Error Message Format	3-10
Figure A-1	SMDI Data Link	A-1
Figure A-2	RS-232-E Interface	A-2
Figure A-3	DTE/DTE Flow Control for Far-> Near Transmission (RTS/CTS) .	A-4
Figure A-4	Outgoing Buffer Operation: FIFO and Sliding FIFO	A-6
Figure A-5	Example Sizing Model for Outgoing Message Buffer	A-8

List of Tables

Table 3-1	Generic Data Message Delivery Request Transfer Syntax for SMDI	3-35
Table 3-2	Generic Data Message Delivery Response Transfer Syntax for SMDI	3-42
Table A-1	Buffer Sizes for Data Link Speeds	A-5