

Contents

Preface	Preface-1
1. Introduction	1-1
1.1 Document Background	1-1
1.1.1 Customer	1-1
1.1.2 Relationship to Other Telcordia Requirements	1-2
1.2 Organization of this Document	1-3
1.3 Requirements Terminology	1-4
1.4 Requirement Labeling Conventions	1-4
1.4.1 Numbering of Requirement and Related Objects	1-5
1.4.2 Requirement, Conditional Requirement, and Objective Object	1-5
Identification	1-5
1.5 Reason for Revision	1-5
2. User Perspective	2-1
2.1 GETS	2-1
2.2 HPC	2-1
3. Feature Requirements	3-1
3.1 AIN Features	3-1
3.1.1 Network Traffic Management Treatment of HPC Calls	3-1
3.1.2 Other AIN Treatment of HPC Calls	3-3
3.2 HPC Call Recognition and Digit Analysis	3-4
3.2.1 HPC Number Recognition	3-4
3.2.2 Relationship of HPC Number Recognition	3-6
to AIN Originating Call Model	3-6
3.3 Signaling Features	3-7
3.3.1 IntraLATA Calls (Non-ISDN)	3-9
3.3.1.1 All-SS7 calls	3-10
3.3.1.1.1 Actions at the Originating Exchange	3-10
3.3.1.1.2 Initial Address Message (IAM)	3-10
3.3.1.1.3 Automatic Congestion Control Procedures	3-12
3.3.1.2 Interactions	3-12
3.3.1.2.1 SS7 Incoming Circuit, Inband Signaling on	3-12
Outgoing Circuit	3-12
3.3.1.2.2 Inband Signaling on Incoming Circuit, SS7	3-12
Outgoing Circuit	3-12
3.3.2 InterLATA Calls (Non-ISDN)	3-13
3.3.2.1 All-SS7 Connections	3-13
3.3.2.1.1 Originating Treatment; Local Exchange	3-13
Carrier to IXC	3-13
3.3.2.1.2 Terminating Treatment: IXC to Local Exchange	3-14
Carrier	3-14
3.3.3 ISDN Calls	3-15
3.4 HPC-Specific Switching System Call Processing Features	3-15

- 3.4.1 HPC Trunk Group Queuing 3-16
 - 3.4.1.1 HPC Trunk Group Queuing Description and Application 3-16
 - 3.4.1.2 HPC Trunk Group Queuing Requirements 3-17
- 3.4.2 HPC Off-Hook Waiting for Outgoing Trunks (HPC OHWOT) 3-18
 - 3.4.2.1 HPC OHWOT Applications 3-18
 - 3.4.2.2 HPC OHWOT Requirements 3-18
- 3.4.3 HPC Enhanced Trunk Queuing 3-20
- 3.4.4 HPC Call Interruption and Announcement 3-22
- 3.5 Network Traffic Management Features 3-23
 - 3.5.1 Manual Code Controls 3-24
 - 3.5.2 Pre-Hunt Trunk Group Controls 3-25
 - 3.5.2.1 Manual Pre-Hunt Trunk Group Controls 3-25
 - 3.5.2.2 Automatic Pre-Hunt Trunk Group Controls 3-25
 - 3.5.3 Reroute and Cancel-From Control Capability 3-26
 - 3.5.3.1 Reroute Control Operation and Requirements . . 3-27
 - 3.5.3.2 Cancel-From Control Operation and Requirements 3-29
 - 3.5.4 Relationship of NTM Controls to HPC Trunk Group Queuing, HPC Enhanced Trunk Queuing, and HPC OHWOT 3-30
- 3.6 Order of Call Treatments 3-30
 - 3.6.1 No Specialized AIN Provided Carrier Routing Treatment . . 3-31
 - 3.6.1.1 No Specialized AIN Treatment With HPC Trunk Group Queuing 3-31
 - 3.6.1.2 No Specialized AIN Treatment With HPC OHWOT 3-33
 - 3.6.1.3 No Specialized AIN Treatment With HPC Enhanced Trunk Queuing 3-34
 - 3.6.2 AIN Provided Multiple Carrier Routing Treatment 3-37
 - 3.6.2.1 AIN Provided Multiple Carrier Routing Treatment With HPC Trunk Group Queuing 3-38
 - 3.6.2.2 AIN Provided Multiple Carrier Routing Treatment With HPC OHWOT 3-40
 - 3.6.2.3 AIN Provided Multiple Carrier Treatment With HPC Enhanced Trunk Queuing 3-43
- 4. Administration 4-1
 - 4.1 Service Provisioning 4-1
 - 4.2 Traffic Measurements for HPC 4-3
 - 4.2.1 AIN Traffic Measurements 4-3
 - 4.2.2 Office Level Traffic Measurements in Switches 4-4
 - 4.2.3 Special Study Measurements 4-7
 - 4.2.4 NDC OS Interface Requirements 4-9
 - 4.3 Network Traffic Management 4-10
 - 4.3.1 HPC NTM Measurements in Switches 4-11
 - 4.3.2 NTM OS Interface Requirements 4-13
- Appendix A: Internetwork Call Control (Non-ISDN) A-1
 - A.1 Originating InterLATA Call Control Access A-1
 - A.2 Terminating InterLATA Call Control Access A-1

A.3 Automatic Congestion Control (ACC) A-2

A.4 Internetwork Call Control Protocol A-2

Appendix B: Call Flow Diagram B-1

Appendix B: Call Flow Diagram B-1

References References-1

Glossary Glossary-1

List of Figures

Figure 3-1.	RR Control with Route Advance Patterns	3-27
Figure 3-2.	Immediate Reroute Control	3-28
Figure B-1.	Call Flow Diagram	B-1
Figure B-1.	Call Flow Diagram (Cont.)	B-2
Figure B-1.	Call Flow Diagram (Cont.)	B-3