

Cell Relay Service Core Features

Contents

[Telcordia SR-3330-Documentation Information](#)

1. Introduction	1-1
1.1 Purpose and Scope	1-2
1.2 Terminology and Key Service Categories.....	1-2
1.3 Relevant Standards and Bellcore Documents.....	1-7
1.4 Document Organization	1-8
2. CRS and PVC Service Description.....	2-1
2.1 PVC CRS Architectural Overview	2-1
2.2 Cell Relay Service Characteristics and Benefits.....	2-4
2.3 The UNI.....	2-5
2.3.1 The CRS User Interface Framework.....	2-5
2.3.2 The ATM Layer.....	2-6
2.4 The NNI.....	2-6
2.5 PVC CRS Subscription Options.....	2-6
2.6 Exchange Access Service & Network Interconnection.....	2-7
3. SVC Service Description.....	3-1
4. Tabular Summary of Core Features	4-1
5. Appendix A: Interface Physical and ATM Layers.....	5-1
5.1 UNI Interfaces.....	5-1
5.2 The NNI Interfaces.....	5-3
5.2.1 The B-ICI	5-3
5.2.2 UNI and IISP Options.....	5-4
6. Appendix B: Connections and Connection Types.....	6-1
6.1 Virtual Connections	6-1
6.2 UNI Connection Types	6-1
6.3 NNI Connection Types	6-2
6.4 B-ICI Connection Types	6-2
7. Appendix C: Communications Configurations	7-1
7.1 Point-to-Point Communication Configurations.....	7-1
7.2 Point-to-Multipoint Communications Configurations.....	7-1
8. Appendix D: Traffic Types and QoS	8-1
8.1 Service Classes	8-1
8.1.1 Service Class A.....	8-1
8.1.2 Service Class C.....	8-1
8.2 Service Categories	8-2

8.2.1 CBR Service Category	8-3
8.2.2 nrt VBR Service Category	8-3
8.2.3 UBR Service Category	8-4
8.2.4 rt VBR Service Category	8-4
8.3 Signaling of Service Category & Conformance Definition	8-4
9. Appendix E: Cell and Transfer Rates.....	9-1
10. Appendix F: Traffic Parameters and Monitoring.....	10-1
10.1 CBR Traffic Monitoring.....	10-1
10.2 nrt VBR Traffic Monitoring	10-2
10.3 UBR Traffic Monitoring	10-2
10.4 UNI and IISP Traffic Management.....	10-3
10.4.1 The Traffic Monitoring Function.....	10-3
10.4.1.1 Peak Cell Rate Traffic Enforcement.....	10-4
10.4.1.2 Sustainable Cell Rate Traffic Enforcement	10-5
10.4.2 CBR.A Traffic Monitoring and Control	10-5
10.4.3 rt VBR Traffic Monitoring and Control.....	10-6
10.4.4 UBR Traffic Monitoring and Control	10-7
10.5 B-ICI Traffic Management	10-8
10.5.1 The Traffic Monitoring Function.....	10-8
10.5.2 Peak Cell Rate Traffic Enforcement	10-9
10.6 Connection Admission Control for SVCs.....	10-9
11. Appendix G: Capacities.....	11-1
12. Appendix H: Network and Configuration Management	12-1
12.1 Support of OAM Cells	12-1
12.2 Customer Network Management Capability	12-1
12.3 Support of ILMI.....	12-3
13. Appendix I: Performance Objectives and Allocations	13-1
13.1 Overview of Traffic and Performance.....	13-1
13.2 Priorities and Service Categories	13-2
13.3 Performance Considerations.....	13-3
13.3.1 UNI-to-UNI Performance Objectives	13-4
13.3.1.1 Cell Loss Ratio.....	13-4
13.3.1.2 Delay Objectives	13-5
13.3.1.2.1 Cell Transfer Delay.....	13-5
13.3.1.2.2 Cell Delay Variation	13-5
13.3.2 UNI-to-NNI Performance Objectives & Network Allocation	13-6
13.3.2.1 Cell Loss Ratio.....	13-7
13.3.2.2 Delay Objectives	13-7
14. Appendix J: Network and Service Interworking.....	14-1
14.1 FR/ATM Network Interworking.....	14-2
14.2 FR/ATM Service Interworking.....	14-2

14.3 Circuit Emulation Interworking.....	14-3
15. Appendix K: UNI Connection Control and Signaling	15-1
15.1 Basic UNI & SVC Signaling Functionality	15-1
15.2 Additional SVC Signaling Features.....	15-2
15.2.1 Passing Transparent Parameters	15-2
15.2.2 User to User Signaling	15-3
15.2.3 Carrier Selection for SVCs.....	15-3
16. Appendix L: Inter-Network Connection Control and Signaling.....	16-1
16.1 The Exchange Access CRS Framework.....	16-1
16.2 Connections Supported Across NNI.....	16-1
16.3 B-ICI Support	16-2
16.4 UNI and IISP Support Options for NNI.....	16-2
17. Appendix M: Addressing	17-1
17.1 Address Formats and Signaling.....	17-1
17.2 Address-Related Capabilities.....	17-2
17.2.1 Calling Party Number Features	17-2
17.2.2 Subaddressing.....	17-3
17.2.3 Address Screening	17-4
18. References.....	18-1
19. Acronyms.....	19-1

List of Figures

Figure 2-1. End User Networking Using CRS.....	2-2
Figure 2-2. Exchange Access Service.....	2-2
Figure 2-3. Interconnecting Networks and End-Customers.....	2-3
Figure 2-4. CRS Peer Protocol Relationships.....	2-5

List of Tables

Table 1-1. CRS Core Feature Phases.....	1-3
Table 1-2. CRS Core Feature Service Packages.....	1-4
Table 1-3. Categories for Grouping CRS Core Features	1-6
Table 1-4. Correspondence Between Issue 2 and Issue 1 SR Sections	1-9
Table 4-1. Core Features Common to All Service Packages (Sheet 1 of 5).....	4-2
Table 4-1. Core Features Common to All Service Packages (Sheet 2 of 5).....	4-3
Table 4-1. Core Features Common to All Service Packages (Sheet 3 of 5).....	4-4
Table 4-1. Core Features Common to All Service Packages (Sheet 4 of 5).....	4-5
Table 4-1. Core Features Common to All Service Packages (Sheet 5 of 5).....	4-6
Table 4-2. Core Features Only in PVC Service Packages I and II (Sheet 1 of 2)	4-7
Table 4-2. Core Features Only in PVC Service Packages I and II (Sheet 2 of 2)	4-8
Table 4-3. Core Features Only in SVC Service Packages III & IV (Sheet 1 of 2) ..	4-9
Table 4-3. Core Features Only in SVC Service Packages III & IV (Sheet 2 of 2) ..	4-10
Table 4-4. Core Features in Inter-Network Service Packages II and IV (Sheet 1 of 3)	4-11
Table 4-4. Core Features Only in Inter-Network Service Packages II and IV (Sheet 2 of 3).....	4-12
Table 4-4. Core Features Only in Inter-Network Service Packages II and IV (Sheet 3 of 3).....	4-13
Table 4-5. Core Features Only in Inter-Network SVC Package IV	4-14
Table 4-6. Possible Future Core Features (Sheet 1 of 2)	4-15
Table 4-6. Possible Future Core Features (Sheet 2 of 2)	4-16
Table 5-1. UNI Physical Interface Support.....	5-1
Table 8-1. Characterization of ATM Service Categories.....	8-2
Table 8-2. Correspondence Between Signaling & Conformance Definition.....	8-5
Table 9-1. Connection Cell Rates for Phase 1	9-1
Table 13-1. CLR Objectives for PVC CRS	13-5