

# Contents

## [Telcordia GR-3110 - Documentation Information](#)

### 1 Introduction

1.1 Purpose and Scope . . . . .	1-1
1.2 Target Audience . . . . .	1-1
1.3 Relationship to Other Telcordia Documents . . . . .	1-2
1.4 Structure and Use of This Document . . . . .	1-2
1.5 Requirements Terminology . . . . .	1-3
1.6 Requirement Labeling Conventions . . . . .	1-4
1.6.1 Numbering of Requirement and Related Objects . . . . .	1-4
1.6.2 Requirement, Conditional Requirement, and Objective Identification . . . . .	1-4

### 2 PV-IDLC System and Operations Overview

2.1 Application Environment . . . . .	2-1
2.2 PV-IDLC Network Architecture . . . . .	2-1
2.2.1 PV-IDLC System Overview . . . . .	2-1
2.2.2 Functional Overview Of PV-IDLC Elements . . . . .	2-2
2.3 PV-IDLC Management Reference Model . . . . .	2-3
2.4 Intra PV-IDLC Management Communications . . . . .	2-5
2.5 Generic Interfaces for OS Communications . . . . .	2-6
2.5.1 Communications Protocol . . . . .	2-6
2.5.1.1 Packet Layer Management Interface Option . . . . .	2-8
2.6 Craft Interface . . . . .	2-8
2.6.1 Local Craftsperson Interface Criteria . . . . .	2-8
2.6.2 Craftsperson/CID Interface . . . . .	2-10
2.6.3 CID/NE Interface . . . . .	2-11
2.6.4 Craftsperson Interface Database Security . . . . .	2-11

### 3 Configuration Management

3.1 Summary of Configuration Management Criteria . . . . .	3-1
3.2 Role of LDS in PV-IDLC Management . . . . .	3-2
3.3 Management of Broadband and Packet Layer Resources . . . . .	3-2
3.4 Line Circuit Address Management . . . . .	3-3
3.5 Packet Voice Technology Management . . . . .	3-4
3.5.1 Jitter Buffer Management . . . . .	3-5
3.5.2 Packet Loss Concealment . . . . .	3-6
3.5.3 Signaling Method . . . . .	3-6
3.5.4 Impairment Threshold . . . . .	3-6
3.6 Softswitch Transition . . . . .	3-7

### 4 Fault Management

4.1 PV-IDLC Testing Strategy . . . . .	4-1
4.2 Summary of Testing Criteria for PV-IDLC Systems . . . . .	4-4
4.2.1 Field-based Distribution Serving Area PV Endpoint (PVE-A) . . . . .	4-4

4.2.2 Short-Loop PV Endpoint (PVE-B)	4-5
4.2.2.1 Additional Requirements for PVE-B or PVE-C Systems using Pass/Fail Indications	4-7
4.2.2.2 IC-based Testing - Option	4-7
4.2.3 Customer Owned PV Endpoint (PVE-C)	4-8
4.2.4 Digital Facility Testing	4-8
4.2.5 PVE Loopback	4-9
4.3 Additional Testing Requirements	4-10
4.3.1 Diagnostics	4-10
4.3.2 ISDN Testing	4-11
4.4 Interface to the Embedded Testing Architecture	4-12
4.5 Generic Test Interface and Transition to Soft Switch Architecture	4-15
4.5.1 Test Messages	4-15
4.5.2 Service State Management	4-15

## 5 Surveillance Criteria

5.1 LDS and OSS Management of PV-IDLC with ISDN Service	5-1
5.2 Performance Management	5-2
5.2.1 PVE Monitoring Option	5-3
5.2.2 Packet Voice Quality Measurements	5-3
5.2.3 Network Data Collection	5-6

## 6 Security Management

6.1 Identification and Authentication	6-1
6.2 System Access Control	6-1
6.3 Resource Access Control	6-2
6.4 Data and System Integrity	6-2

## Appendix A: References

## Appendix B: Acronyms

## Requirement-Object Index

## List of Figures

Figure 2-1	PV-IDLC Management Reference Architecture . . . . .	2-5
Figure 2-2	PV-IDLC Craft Interfaces . . . . .	2-9
Figure 4-1	PV-IDLC System Testing Strategy Summary . . . . .	4-3
Figure 4-2	Comparative View Of an Integrated FITL System and a PV-IDLC . . . . .	4-6
Figure 4-3	PV-IDLC System Supporting ISDN Testing . . . . .	4-12
Figure 4-4	Metallic and Channel Testing Using Switch-based Test Architecture . . . . .	4-13
Figure 4-5	Metallic and Channel Testing Using Generic Test Interface . . . . .	4-14