Contents

1. Introduction 1–1
1.1 Purpose and Scope 1–1
1.2 Target Audience 1–1
1.3 Review/Concurrence Information 1–1
1.4 Structure and Use of This Document 1–1
1.5 Requirements Terminology 1–2
1.6 Requirement Labeling Conventions 1–2
1.6.1 Numbering of Requirement and Related Objects 1–2
1.6.2 Requirement and Objective Object Identification 1–2
2. General Information 2–1
2.1 Opportunity 2–1
2.2 CORBA Description 2–2
2.2.1 CORBA Security 2–6
2.3 CORBA Integration in TMN 2–9
2.4 Assumptions, Dependencies, and Constraints 2–11
3. Threats 3–1
4. Security Services for CORBA-Based Transactions in Network Management . . . 4–1
4.1 Identification and Authentication 4–1
4.2 Integrity 4–2
4.3 Confidentiality 4–2
4.4 Non-Repudiation 4–2
4.5 Access Control 4–3
4.6 Security Alarm 4–3
4.7 Security Audit Trail 4–3
4.8 Common Secure Interoperability Levels 4–4
5. Global Product Requirements 5–1
5.1 Identification and Authentication Requirements 5–1
5.2 Integrity Requirements 5–3
5.3 Confidentiality Requirements 5–3
5.4 Non-Repudiation Requirements 5–4
5.5 Access Control Requirements 5–4
5.6 Security Alarm Requirements 5–6
5.7 Security Audit Trail Requirements 5–7
5.8 Other Requirements 5–8
Appendix A: References A–1
Appendix B: Acronyms B–1
Requirement-Object Index ROI–1

List of Figures

Figure 2-1 Basic CORBA Architecture 2–4
Figure 2-2 Basic Communication Protocol Stack for CORBA-Based Network Management 2–5
Figure 2-3 CORBA/OSI Interoperability Scenarios 2–10