

Table of Contents

Special Report Notice Of Disclaimer	iii
List of Tables	viii
1. Introduction	1-1
1.1 Purpose	1-1
1.2 Scope	1-1
1.3 Intended Audience	1-1
1.4 Summary of Sections	1-1
2. Functional Implementation Statement (FIS)	2-1
2.1 Assumptions	2-1
2.2 Object Naming	2-1
2.3 Supported Layer Rates	2-1
2.4 AVCs, Object Creation/Deletion and Other Notifications	2-3
2.5 Alarms	2-3
2.6 Exceptions	2-4
2.7 FIS Template Overview	2-5
2.7.1 Data Types	2-5
2.7.2 Interfaces	2-7
2.8 Common Module	2-8
2.8.1 Data Types	2-8
2.8.2 Interfaces	2-8
2.9 EmsMgr Module	2-8
2.9.1 Data Types	2-8
2.9.2 Interfaces	2-9
2.10 EMS Session Module	2-10
2.10.1 Data Types	2-10
2.10.2 Interfaces	2-10
2.11 EmsSessionFactory	2-11
2.11.1 Data Types	2-11
2.11.2 Interfaces	2-11
2.12 Equipment Module	2-11
2.12.1 Data Types	2-11
2.12.2 Interfaces	2-13
2.13 Globaldefs Module	2-14
2.13.1 Data Types	2-14
2.13.2 Interfaces	2-14
2.14 GuiCutThrough Module	2-15
2.14.1 Data Types	2-15
2.14.2 Interfaces	2-16
2.15 Maintenance Operations Module	2-16
2.15.1 Data Types	2-16
2.15.2 Interfaces	2-17
2.16 Managed Element Module	2-17
2.16.1 Data Types	2-17

2.16.2 Interfaces	2-18
2.17 ManagedElementManager Module	2-18
2.17.1 Data Types	2-18
2.17.2 Interfaces	2-18
2.18 MTNM Version Module	2-19
2.18.1 Data Types	2-19
2.18.2 Interfaces	2-19
2.19 MultiLayerSubnetwork Module	2-20
2.19.1 Data Types	2-20
2.19.2 Interfaces	2-20
2.19.3 Template for createAndActivateSNC Operation	2-21
2.20 NMS Session Module	2-23
2.20.1 Data Types	2-23
2.20.2 Interfaces	2-23
2.21 Notifications Module	2-24
2.21.1 Data Types	2-24
2.21.2 Interfaces	2-24
2.22 Performance Module	2-24
2.22.1 Data Types	2-24
2.22.2 Interfaces	2-25
2.23 Protection Module	2-27
2.23.1 Data Types	2-27
2.23.2 Interfaces	2-27
2.24 Session Module	2-28
2.24.1 Data Types	2-28
2.24.2 Interfaces	2-28
2.25 Subnetwork Connection Module	2-29
2.25.1 Data Types	2-29
2.25.2 Interfaces	2-30
2.26 Termination Point Module	2-31
2.26.1 Data Types	2-31
2.26.2 Interfaces	2-32
2.27 Topological Link Module	2-32
2.27.1 Data Types	2-32
2.27.2 Interfaces	2-33
2.28 TrafficDescriptor Module	2-33
2.28.1 Data Types	2-33
2.28.2 Interfaces	2-34
2.29 TransmissionParameters Module	2-34
2.29.1 Data Types	2-34
2.29.2 Interfaces	2-34
2.30 Miscellaneous	2-34
2.30.1 Version of CORBA and CORBA Services	2-34
2.30.2 Usage of the OMG Notification Service	2-35
3. Non-functional Implementation Statement (NIS)	3-1
3.1 Iterator Implementation Issues	3-1
3.2 Timing Issues	3-1

3.3 Expected EMS Reliability and Availability	3-4
3.4 System Capacity and Performance	3-5
3.4.1 System-to-System Interface	3-5
3.4.2 Performance Measurements/Alarms	3-5
Appendix A: References	A-1
Note	A-2
To Contact Telcordia Customer Service or to Order Documents	A-2
To Order Documents From Within Telcordia (Employees Only)	A-2
Digest of Technical Information (A Monthly Publication)	A-2
Appendix B: Acronyms	B-1
Appendix C: Attachments	C-1
C.1 TMF 814 File Format for Historical PM Data	C-1

List of Tables

Table 2-1	Supported Layer Rates	2-1
Table 2-2	Supported Layer Rates for NetCon	2-2
Table 2-3	Notifications for Second-Level Objects	2-3
Table 2-4	TMF 814 Alarm Fields	2-4
Table 2-5	<Name of Data Type, e.g., Managed Element>	2-6
Table 2-6	Interface Name, e.g., EquipmentInventoryMgr	2-7
Table 2-7	General Iterator Interface	2-8
Table 2-8	Common	2-8
Table 2-9	EMS	2-9
Table 2-10	EMSMgr	2-9
Table 2-11	EmsSession	2-10
Table 2-12	EmsSessionFactory	2-11
Table 2-13	Equipment	2-11
Table 2-14	Equipment Holder	2-12
Table 2-15	Equipment Inventory Manager	2-13
Table 2-16	GCTProfileInfo	2-15
Table 2-17	GuiCutThroughData	2-15
Table 2-18	GuiCutThroughMgr	2-16
Table 2-19	CurrentMaintenanceOperation	2-16
Table 2-20	MaintenanceMgr	2-17
Table 2-21	Managed Element	2-17
Table 2-22	ManagedElementMgr	2-19
Table 2-23	Version	2-20
Table 2-24	MultiLayerSubnetwork	2-20
Table 2-25	Multi-layer Subnetwork Manager	2-21
Table 2-26	Operation Template for createAndActivateSNC	2-22
Table 2-27	NmsSession	2-23
Table 2-28	PMData	2-24
Table 2-29	PMMeasurement	2-25
Table 2-30	PMThresholdValue	2-25
Table 2-31	PerformanceManagementMgr	2-26
Table 2-32	ProtectionGroup	2-27
Table 2-33	ProtectionMgr	2-28
Table 2-34	Session	2-28
Table 2-35	Cross Connection	2-29
Table 2-36	Subnetwork Connection	2-29
Table 2-37	Termination Point	2-31
Table 2-38	Topological Link	2-32
Table 2-39	Traffic Descriptor	2-33
Table 2-40	TrafficDescriptorMgr	2-34
Table 2-41	CORBA Version	2-35
Table 2-42	Usage of the Notification Service	2-35
Table 3-1	Operations Response Times and Timeouts	3-2
Table 3-2	Notification and Alarm Timeouts	3-3

Table 3-3	Heartbeat Time Constraints	3-4
Table C-1	TMF 814 PM File Format	C-1