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**Network Aspects (NA);
Vocabulary of terms for TMN**

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1. Foreword

This ETR has been produced by the Sub Technical Committee NA-4 of the European Telecommunications Standards Institute (ETSI) as a result of studies into Telecommunications Management Network Standardization issues. The intention is to make available a comprehensive vocabulary on TMN related terms in one document, by bringing together a number of definitions of TMN related terms from CCITT Recommendations, ISO standards etc, and emerging ETSI and other standards bodies deliverables.

2. References

The initial source of each definition is stated, in brackets, after the text of the definition, e.g. (CCITT X.200), (ISO 9545) etc. These definition texts are taken from the indicated references.

3. General

The purpose of this Technical Report is to define, unambiguously, the meaning of terms used in the documents being produced by NA-4 relating to Telecommunications Management Network activities.

The state of definitions is qualified by a figure 1 or 2, with the qualifier 1 meaning the definition of the term is stable whilst that of 2 meaning the definition may need improvement or qualification. This categorisation reflects the fact this (d)ETR will need to be maintained, ie updated and checked at regular intervals.

VOCABULARY OF TERMS FOR TMN

- Accounting Management 1
- A set of functions which enables the use of network services to be measured and the costs for such use to be determined and rendered.
(CCITT M.30)
- Action 2
- A type of management operation which applies to managed objects as a whole, its impact is generally not confined to modifications of attribute values.
(ISO DP 10165-1)
- Administration 2
- Administration covers a broad group of functions that sustain telecommunication services once they have been established. Administration generally consists of network administration and service administration. Network administration ensures that the network is used efficiently and that grade-of-service objectives are met. Service administration includes such diverse support functions as billing, collecting and switching system service evaluation.
(CCITT SG IV)
- Agent 1
- A Management Information System user which, for a particular exchange of systems management information has, taken an agent role.
(ISO DP 10040)
- Agent Role 1
- A Management Information System user taking an agent role is capable of performing operations on managed objects and of emitting notifications on behalf of managed objects.
(ISO DP 10040)

- Alarm 1
- An alerting indication to a condition that may have immediate or potential negative impact on the state of the monitoring Network Element.
(CCITT M.30)
- Alarm Status 1
- A set of attributes that describes the alarms currently defined for an object, for example, Alarm Severity, Alarm State etc. The alarm status of an object is a subset of the global status of that object.
(ISO 7498-4)
- Alarm Surveillance 1
- A set of TMN Application functions which provides, near real time, detection and indication of failures.
(CCITT M.30)
- Allomorphism 1
- The ability of a managed object of a given class to resemble objects of one or more other object classes.
(CCITT X.720)
- Analogue Signal 2
- A continuous signal that varies in some direct relationship with an impressed phenomenon, stimulus, or event that bears intelligence.
(ISO 7498-4)
- Application Association 1
- A cooperative relationship between two application entities, formed by their exchange of application protocol control information through their use of presentation services.
(CCITT X.217)
- Application Context 1
- An explicitly identified set of application service elements, related options and any other necessary information for the interworking of application entities on an application association.
(CCITT X.217)

- Application Entity 1
- The aspects of an application process pertinent to OSI.
(CCITT X.200)
- Application Process 1
- An element within a real open system which performs the information processing for a particular application.
(CCITT X.200)
- Application Protocol 1
- A set of rules and formats (semantic and syntactic) which determine the communication behaviour of application entities in the performance of application functions.
(CCITT X.200)
- Application Protocol Control Information 1
- Information exchanged between application entities, using presentation services, to coordinate their joint operation.
(ISO 9545)
- Application Protocol Data Unit 1
- A unit of information specified in an application protocol, that consists of application protocol control information and possibly user information.
(ISO 9545)
- Application Service Element 1
- A set of functions that provide a capability for the interworking of application entity invocations for a specific purpose on a single application association.
(ISO 9545)
- Arena 2
- A bounded area of logical management responsibility
(CCITT M.30)

Architecture (functional) 1

- A collection of function blocks and their interconnections, with reference points to define conceptual points of information exchange between non-overlapping function blocks.
(CCITT M.30)

Architecture (physical) 1

- The result of a design process which defines hardware and software components and their interfaces and establishes a framework for a system.
(CCITT M.30)

Attribute (of managed object) 1

- Information concerning a managed object used to describe (either in part or in whole) that managed object. This information consists of an attribute type and its corresponding attribute value (for "single-valued" attributes) or values (for "multi-valued" attributes).
(ISO 7498-4)

Attribute Identifier 1

- An identifier used to distinguish an attribute of a managed object class from all other attributes defined for that object class.
(ISO 9595)

Attribute Type 1

- Defines a collection of values which an instance of that type may have, and a collection of operations (in their mathematical sense) which may be performed on values of that attribute type.
(ISO 10165-1)

Attribute Value 1

- A particular instance of the class of information indicated by an attribute type.
(ISO 7498-4)

Attribute Value Assertion 1

- An assertion that a particular attribute of a managed object has a particular value i.e. a proposition that may be true, false, or undefined, concerning the values (or perhaps only the distinguished values) of an entry. (CCITT X.501)

Authority Domain 2

- A set of managed objects managed by a managing application in the context of a particular authority relationship set. (OSI/NMF GLOSSARY)

Authority Relationship 2

- A relationship between a managing application and a managed object, in which the managing application has the authority to manage the managed object. (OSI/NMF GLOSSARY)

Authority Relationship Set 2

- A set of authority relationships, each authority relationship of the set being defined from some common standpoint of allocated management responsibility. (OSI/NMF GLOSSARY)

Behaviour 1

- A description of the way in which managed objects, name bindings, attributes, notifications and actions interact with the actual resources they model and with each other. (ISO DP 10165-1)

Billing Integrity 1

- Preservation of accuracy according to specified performance parameters and criteria when preparing bills to a user for a service. (CCITT M.30)

Bus-type Interface 1

- An interface over which signals from a number of channels or equipments pass, separated by time division and uniquely identified by header information. (CCITT M.30)

- Cascaded network 1
- A physical architecture where connections for one type of components (e.g. Network Elements) follow serially through similar components before being connected to another type of components (e.g. OS)
(CCITT M.30)
- Circuit-Switched Network 2
- A network which provides connections for exclusive use of the users for the duration of a call or service by interconnecting transmission channels or telecommunication circuits.
(CCITT M.30)
- Client-Server Relationship 1
- A relationship between functional entities (e.g. managed objects) in which the client is the user of a service provided by a server.
(OSI/NMF GLOSSARY)
- Common Management Information Services 1
- The sets of services provided by the Specific Management Information Service Elements.
(ISO 9595)
- Common Management Information Service Element 1
- Application Service Element which provides basic services for the transfer and manipulation of management information.
(ISO 9595)
- Communication Function 2
- see Message Communication Function
- Concentrator 2
- A communication device, serving as mediation equipment in the telecommunication management network, which permits equipment connected to multiple physical ports to share a smaller number of physical ports for connection to a communication network or one or more dedicated lines. One NE is connected to each physical port. On the ports carrying concentrated data, frames

containing data passing to and from each of the NE ports are interleaved.
(ANSI T1.210)

Concrete Syntax 1

- Those aspects of the rules used in the formal specification of data which embody a specific representation of that data.
(CCITT X.200)

Configuration Management 1

- A set of functions which exercise control over the extension or reduction of a system, the status of the constituent parts and the identity of their allocation.
(CCITT M.30)

Connection Quality 1

- The collective effect of service performance, which determines the degree of satisfaction of a user with the particular connection.
(CCITT M.30)

Connection Retention 1

- The probability that a connection, once obtained, will continue to be provided for a communication.
(CCITT M.30)

Containment 1

- A structuring relationship for managed objects in which existence of a managed object is dependent on the existence of a containing managed object.
(ISO DP 10165-1)

Containment Tree 1

- A hierarchical arrangement of managed object instances where the hierarchy is organised on the basis of containment relationships. A managed object instance containing another managed object instance is higher in the hierarchy than the contained object. The containing managed object instance is referred to as being the superior of the contained object, which is referred to as the subordinate.
(ISO DP 10165-1)

Cross-Connect (digital) 1

- The function of cross-connect systems is to act as automated distribution frames enabling traffic to be sorted and routed on a semi-permanent basis under local or remote computer control.
(CCITT M.30)

Customer 2

- A customer is an entity which receives services offered by a service based on a contractual relationship. It may include the role of a network user.
(ETSI DTR/NA-6001)

Data Collection Processor 1

- A communications device serving as mediation equipment in the telecommunication management network, which provides concentration, protocol conversion and operations functions such as accumulation and thresholding. One or more NEs may be connected to each physical port.
(ANSI T1.210)

Data Communication Network (DCN) 1

- A communication network within a TMN which supports Data Communication Functions (DCF) at the reference point q3.
(CCITT M.30)

Data Communications Function Block (DCF) 1

- The DCF provides the means for data communication to transport information related to telecommunication management between function blocks.
(CCITT M.30)

Data Communications Channel (DCC) 1

- Within an STM-N signal there are two DCC channels, comprising bytes D1-D3, giving a 192 kbit/s channel, and bytes D4-D12, giving a 576 kbit/s channel. D1-D3 (DCC R) are accessible by all SDH NEs whereas D4-D12 (DCC M), not being part of the regenerator section overhead, are not accessible at regenerators. D1-D3 are allocated for SDH NE use. The D4-12 channel can be used as a wide-area, general-purpose communication channel to support TMN including non-SDH applications.
(CCITT G.784)

Dead-lock

2

- Dead-lock occurs when a management operation has embarked upon a course of action which involves the control of several objects but not all the objects are available as they are locked by another operation which cannot continue until objects locked by the first operation are released. Hence each operation is waiting for the other to do something (note that multiple operations may be involved in a dead-lock).
(ETSI DTR/NA-43202)

Diagnostic tests

1

- Tests specially designed to identify more precisely, preferably to a single replaceable unit, the location of a hardware fault.
(CCITT M.30)

Digital Signal

1

- A discretely timed signal in which information is represented by a number of well-defined discrete values.
(ISO 7498-4)

Distinguished Name

1

- The name of a managed object which consists of a sequence of the relative distinguished names of its superiors in the naming tree, starting at the root and working to the managed object to be identified.
(OSI/NMF GLOSSARY)

Embedded Operations Channel (EOC)

1

- A channel which is provided as an integral part of a communications facility for the purpose of carrying operations messages.
(ANSI T1.210)

Emergency action

1

- A modified action or procedure to be used when normal activity cannot re-establish the handling of traffic.
(CCITT M.30)

Equipment Domain 1

- An object class to describe hardware or software or a combination of both, it need not be physically distinct within a computer system.
(CCITT X.224)

Event 1

- An instantaneous occurrence that changes the global status of an object. This status change may be persistent or temporary, allowing for surveillance, monitoring, and performance measurement functionality, etc. Events may or may not generate reports; they may be spontaneous or planned; they may trigger other events or may be triggered by one or more other events.
(ISO 7498-4)

Embedded Control Channel (ECC)

- An ECC provides a logical operations channel between SDH NEs, utilizing a Data Communications Channel (DCC) as its physical layer.
(CCITT. G.784)

Fault (maintenance) management 1

- A set of TMN Application functions which enable the detection and localization of failures, the scheduling of repairs, and the testing out and return to service of repaired equipment.
(CCITT M.30)

File 1

- A complete collection of related data.

File-oriented applications 1

- Applications concerned with the storage, manipulation, and exchange of information between application processes in the form of files.
(ANSI T1.210)

Function Attributes 1

- Properties or characteristics of Functions which allow differentiation between realizations to be specified by means of parameters.
(CCITT M.30)

Function Block 1

- A function block is a constituent part of the functional architecture of a TMN. Function blocks provide the TMN general functions which enable a TMN to perform the TMN Management Services.
(CCITT M.30)

Functional Component 2

- A Sub-element within a Function Block
(ETSI DTR/NA-43202)

Functional Entity (FE) 1

- A functional entity is a grouping of service-providing functions in a single location and is a subset of the total set of functions required to provide the service. It is described in terms of the control of one instance of a service.
(Q.65 Blue Book)

Functional Model 2

- A layered structure of functions and their logical interfaces representing the TMN. The functional model is implementation independent and does not imply any allocation of functions to physical entities.
(CCITT SG IV)

Generic Definitions 1

- Definitions of object classes, attribute types, notification types or operation types, made available for general use.
(ISO DP 10040)

Generic System Resource 1

- The logical representation, in terms of function, of an individual resource within a system or sub-system.
(OSI/NMF GLOSSARY)

- Global Status 1
- The complete set of attributes necessary to describe an object at a particular time.
(ISO 7498-4)
- Group Relationship 1
- Used to express the grouping of the same or different classes of member objects for some identified functional, management or administrative purpose.
(ISO 2nd DP 10164-3)
- Information Model 1
- Between two communicating entities there needs to exist a common understanding of the information about which communication can take place. This is abstracted in an information model as objects and their behaviour, characteristics and relationships.
(ECMA TS/PTN-MF)
- Inheritance 2
- The conceptual mechanism by which attributes, notifications, operations and behaviour are acquired by a subclass from its superclass.
(ISO DP 10165-1)
- Inheritance Hierarchy 1
- A hierarchical arrangement of managed object classes where the hierarchy is organised on the basis of class refinement. A managed object class which is derived from another managed object class is lower in the hierarchy than the class from which it is derived.
(ISO DP 10165-1)
- Interface 1
- A physical boundary between two associated equipments, across which information may flow.
(CCITT G.701, I.112)
- Interoperability 1
- The ability of network management products and services from different suppliers to work together to manage communications between managed object classes.
(OSI/NMF GLOSSARY)

Interoperable Interface 1

- The formally-defined set of protocols, procedures, message formats and semantics used to communicate management information within an object-oriented paradigm.
(OSI/NMF GLOSSARY)

Interoperable Network Management 1

- The specification and the application of the means by which network management products and services from different suppliers can work together to manage communications and computer networks.
(OSI/NMF GLOSSARY)

Maintenance 1

- The combination of all technical and corresponding administrative actions, including supervision actions, intended to retain an item in, or restore it to, a state in which it can perform a required function.
(CCITT M.60)

Maintenance Entities (ME) 1

Maintenance entities are defined by the following principles:

- The different equipments of a telecommunications network constituting the ME's are interconnected at consecutive and easily identifiable interface points, at which points the interface conditions defined for these equipments apply, and which possess the means of detecting maintenance events and failures.
- If the telecommunication equipments supports bidirectional transmission, it normally consists of telecommunications equipment transmitting in both directions and then both directions are considered part of the same ME.
- When a failure occurs within a network, it is desirable that the maintenance alarm information indication appears at the failed maintenance entity. When this is not practical, the indication should appear at the closest possible entity.
- Maintenance alarm information indications in an entity should not cause related alarm information indications at other entities. In the event that such indications

are permitted to occur, they should clearly indicate that the failure has occurred upstream, and not in the other entities displaying the information.
(CCITT M.60)

Maintenance Entity Function (MEF) 2

- Maintenance Entity Functions are involved in the telecommunication process. Typical MEFs are switching and transmission. A maintenance Entity (ME) can contain one or more MEFs.
(DTR/NA-43202)

Managed (open) System 1

- A real open system supporting the agent role of an MIS-User.
(ISO DP 10040)

Managed Domain 1

- A set of real open systems, collected for systems management.
(ISO DP 10040)

Managed Element 1

- A physical or logical resource that is to be managed, but that exists independently of its need to be managed. Managed elements include resources within the communications network which provide communications services, and systems resources that make use of the communication network.
(OSI/NMF GLOSSARY)

Managed Object 1

- A view of one or more resources. The abstract view of such a resource that represent its properties as seen by (and for the purpose of) management.
(ETSI DTR/NA-43202)

Managed Object Class 1

- A named set of Managed Objects sharing the same attributes, notifications and management operations.
(ISO 10040)

Managed Object Instance 1

- A particular managed object of a managed object class.
(ISO 7498-4)

Management Application Function (MAF) 1

- An application process participating in system management. The Management Application Function includes an Agent (being managed) and/or Manager. Each Network Element (NE) and Operations System (OP) or Mediation Device (MD) must support a Management Application Function that includes at least an Agent. NE contains the Management Application Function NEF-MAF, MD contains MF-MAF and OS contains OSF-MAF. A Management Application Function is the origin and termination for all TMN messages.
(ETSI DTR/NA-43202)

Management Information Base (MIB) 2

- The Management Information Base is the conceptual repository for information within a TMN that can be exchanged or affected through the use of TMN protocols. The MIB is the set of managed objects within the TMN.
(ETSI DTR/NA-43202)

Management Information Tree 1

- See "Naming Tree".

Management Layer 2

- Management layers are used to restrict management activity within the boundaries of each layer to a clearly defined rank that is concerned with a subset of the total management activity.
(CCITT M.30)

Management Subdomain 2

- A management domain that is wholly located within another management domain.
(ANSI T1 LB 139)

- Manager 1
- An MIS-User, which for a particular exchange of systems management information, has taken a manager role.
(ISO DP 10040)
- Manager Role 1
- An MIS-User taking a manager role is capable of issuing operations and of receiving notifications.
(ISO DP 10040)
- Management System 2
- A system with the capability and authority to exercise control over and/or collect management information from another system.
(OSI/NMF GLOSSARY)
- Mediation Device 1
- The mediation device is the stand-alone device which performs mediation functions. Mediation Devices can be implemented as hierarchies of cascaded devices.
(CCITT M.60)
- Mediation Function Block (MF) 1
- The MF acts on information passing between NEF's and OSF's to achieve smooth and efficient communication. Major MFs include communication control, protocol conversion and data handling, communication of primitive functions, processes involving decision making, and data storage.
(CCITT M.60)
- Memory Back up 1
- A process which takes copies of information in a data base memory, at periodic intervals, to be used for rebuilding that memory's contents in case of its failure.
(CCITT M.30)
- Message 2
- Content of a notification or an operation.
(CCITT SG IV)

Message Communication Function (MCF) 2

- The Message Communication Function is associated with all function blocks and is used to exchange management information contained in Messages with their peers. The MCF is composed of and limited to a protocol stack that allows connection of function blocks to Data Communication functions. Depending on the protocol stack supported at the reference point, different MCF types will exist. These will be differentiated by subscripts (e.g MCFq3 applies at a q3 reference point).
(ETSI DTR/NA-43202)

Message Syntax 2

- The relationships between messages or groups of messages, independent of their meanings or the manner of their interpretation and use.
(CCITT M.30)

Multiple Inheritance 1

- A conceptual mechanism that allows a managed object class to acquire attributes, notifications, operations and behaviour from more than one superclass.
(ISO DP 10165-1)

Name Binding 1

- A relation between managed object classes for the purpose of naming.
(ISO DP 10165-1)

Naming Tree 1

- A hierarchical arrangement of managed objects where the hierarchy is organised on the basis of the containment relationship. A managed object used to name another managed object is higher in the hierarchy than the named object. The naming managed object is referred to as being the superior of the named object, which is referred to as the subordinate.
(ISO DP 10165-1)

- Network Element (NE) 1
- The NE consists of telecommunication equipment (or groups/parts of telecommunication equipment) and support equipment that performs network element functions (NEF's) and has one or more standard Q-type interfaces.
(CCITT M.30)
- Network Element Function Block (NEF) 1
- The NEF is a functional block which communicates with a TMN for the purpose of being monitored and/or controlled.
(CCITT M.30)
- (N)-layer Managed Object 2
- A managed object specific to the (N)-layer.
(ISO DP 10040)
- Notification 1
- Information emitted by a managed object relating to an event that has occurred within the managed object.
(ISO DP 10040)
- Notification Type 1
- A datatype defining a specific kind of notifications.
(ISO DP 10040)
- Object 1
- An abstraction of a physical or a logical resource for management purposes.
(ETSI NA4)
- Object Class 1
- An identified family of objects that share certain characteristics.
(ISO 7498-4)
- Object Instance 1
- A particular object of an object class.
(ISO 7498-4)

Operation, administration and maintenance centre (OAMC) 1

- The OAMC is an administration's centre with responsibility for the general operation, administration and maintenance of the network. It includes both the staff and associated operation systems. The functions may be distributed among many centres and operation systems.
(CCITT M.36)

Operations 1

- These include the operation of work centres, technical support centers, support systems, test equipment, methods and procedures, as well as the personnel and training required to install and maintain all the elements that constitute the network capability underlying the relevant services.
(CCITT SGIV)

Operations Systems (OS) 1

- The OS is the stand-alone system which performs operation system functions (OSF).
(CCITT M.60)

Operations Systems Function Block (OSF) 1

- The OSF processes information related to telecommunication management for the purpose of monitoring/coordinating and/or controlling telecommunications functions and support functions including management functions (ie the TMN itself).
(ETSI DTR/NA-43202)

Orchestration

- Orchestration is sequencing where a management operation is dependent upon several managed objects in a network being changed in a strict sequence.
(ETSI DTR/NA-43202)

Package (conditional) 2

- A collection of optional attributes, notifications, operations and behaviour which are either all present or all absent in a managed object. The presence or absence of a package is conditional on the capability

of the underlying resource, e.g. the options of an X.25 protocol machine.
(ISO DP 10165-1)

Packet Switched Network 2

- A network providing a service involving the transmission, and if necessary, the assembly and disassembly of data in the form of packets.
(CCITT X.15)

Parallel (Interface) 1

- An interface consisting of two or more connection elements in parallel, with each connection element dedicated to the passage of signals from a specific equipment.
(CCITT M.30)

Partial Distinguished Name (PDN) 2

- A name of a managed object (which may be ambiguous out of context), formed from the sequence of the relative distinguished names of the managed object, and each of its superior instances, but not necessarily all the way back to the route.
(OSI/NMF GLOSSARY)

Performance Management 1

- A set of functions which enable the performance (i.e. ability to reproduce a signal) of the network services to be measured and corrective actions to be taken.
(CCITT M.30)

Physical Configuration 1

- A combination of equipment entities showing electrical, optical or electromagnetic radiation type interconnections between associated parts.
(CCITT M.30)

Polling 1

- The action of sequentially interrogating various equipment items, on a common communication bus, in order to solicit information from them.
(CCITT M.30)

Presentation Context 1

- An association of an abstract syntax with a transfer syntax.
(CCITT X.216)

Presentation Function (PF) 2

- The PF performs the general operations to translate the information held in the information model, and available at the 'f' reference point, to a displayable format for the user at the 'g' reference point.
(CCITT M.30)

Private Operating Agencies 1

- Privately owned (as distinct from a Telecommunication Administration) network operator or value added services provider.
(CCITT M.30)

Protocol 2

- A set of rules and formats (semantic and syntactic) which determines the communication behavior of peer entities.
(ANSI T1.210)

Provisioning 1

- Provisioning is the process of making available various telecommunications resources (such as switching system and transport facilities) for telecommunication services. Provisioning includes forecasting the demand for services, determining the additions or changes to the network that will be needed, determining where and when they will be needed, and installing all the necessary network elements to provide such services.
(CCITT. SGIV)

Q-Adapter (QA)

- The Q-Adapter is a device which connects telecommunications and support equipment with non-TMN compatible interfaces (M reference points) to Qx or Q3 interfaces. QAs may contain mediation functions.
(ETSI DTR/NA-43202)

Q-Adapter Function Block (QAF) 1

- The QAF is used to connect to the TMN those Network Element Functions which do not support standard TMN interfaces.
(CCITT M.30)

Reference Point 1

- A conceptual point at the conjunction of two non-overlapping function blocks that can be used to identify the type of information passing between these function blocks.
(CCITT. SGIV)

Relationship 1

- A set of rules that describe how the activity of one part of an open system affects the activity of another part of an open system. A relationship is said to exist between two managed objects when the activity of one managed object affects the activity of the other managed object.
(CCITT. SGIV)

Resource (physical, logical) 1

- Any physically or conceptually (logically) identifiable entity, the possession or use of which can be unambiguously determined.
(E.600)

Security Management 1

- A set of functions which enable TMN to change passwords and alter the identifications and security classes of communication channels.
(CCITT M.30)

Service Control Function (SCF) 1

- This function contains the IN service logic programmes and handles service-related processing activity.
(ETSI DTR/NA-6001)

- Service Creation Environment Function (SCEF) 1
- The set of functions that support the service creation process, the output of which includes both service logic programmes and service data templates. (ETSI DTR/NA-6001)
- Service Management Agent Function (SMAF) 1
- This is an alternative term for Work Station Function. The SMAF may reside in an intelligent terminal or a computer. The physical entity would be connected to the physical entity where the SMF resides. The purpose of SMAF is to allow the interface of this connection to be specified. (ETSI DTR/NA-6001)
- Service Management Function (SMF) 1
- Service Management Function is the functional entity which involves activities for service deployment, service provisioning, service control, billing and service monitoring. (ETSI DTR/NA-6001)
- Service Status 2
- A set of attributes that describes the services provided by an object, for example: Service State, etc. The service status of an object is a subset of the global status of the object. (ISO 7498-4)
- Service Switching Function (SSF) 2
- The Service Switching Function is the function, embedded in a switch, which provides the switch connection-handling function with access to the service logic which can be located in the same switch or in a remote network element. This function interfaces with CCF and SCF. It allows CCF to be directed by the SCF. (ETSI DTR/NA-6001)
- Specialisation 2
- The technique of deriving new managed object classes from an existing class by the addition of new capabilities, such as new attributes or notifications. (ISO DP 10165-1)

Specialised Database Function (SDF) 1

- The Specialised Database Function provides the specialised data for real-time access by the Service Control Function. It hides to the SCF the real data implementation and provides a logical data view to the SCF.
(ETSI DTR/NA-6001)

Specialised Resources Function (SRF) 1

- The Specialised Resources Function provides a category of resources for access by users. Examples of resources include DTMF sending and receiving, protocol conversion, speech recognition, synthesized speech provision, ...
(ETSI DTR/NA-6001)

Star (interface) 1

- An interface in which signals to and from a number of equipments are brought to corresponding ports on one equipment item.
(CCITT M.30)

Status 2

- A set of attributes necessary to describe an object at a particular time for a particular purpose.
(ISO 7498-4)

Strict Single Inheritance 2

- The inheritance by a subclass of all characteristics of a single superclass.
(OSI/NMF GLOSSARY)

Stratum 1

- A logical division within the TMN management hierarchy. There is a "q" type reference point between different stratum.
(CCITT SGIV)

Subclass 1

- A class derived from another class by refinement.
(ISO 10165-1)

- Subordinate Managed Object 2
- A managed object instance further from the root in the naming tree, contained within a superior managed object and named within the scope of its superior managed object.
(ISO DP 10165-1)
- Superclass 1
- A class used in deriving another class by refinement.
(ISO 10165-1)
- Support Entity Function Block (SEF) 1
- The SEF is a grouping of equipment not directly involved in the telecommunication process but which has a single functional characteristic. A Support Entity (SE) can contain one or more SEF's. Typical SEFs are Airconditioning, billing, protection switching.
(CCITT M.30)
- Support Equipment or Support Entity (SE) 1
- Equipment not directly involved in the telecommunication process (i.e. transmission or switching of signals) but necessary to ensure continuity of performance by transmission and switching equipment (e.g. air-conditioning units, power systems, billing, test modules, building alarm systems, etc.)
(CCITT M.30)
- Support Object 2
- An object defined to support the functions of managing a network. Support objects do not exist independently of the act of network management.
(ISO 7498-4)
- Synchronization 1
- Clock synchr. used in transmission and switching equipment. Activity synchr. used in TMN. This is where a single management operation needs to be positional in a particular order as it needs to influence several managed objects in a coordinated

manner. The managed objects involved could be distributed across several separate managed elements. (ETSI DTR/NA-43202)

Systems Management Application Service Element 1

- An application service element providing systems management services. (CCITT X.701)

Systems Management Function 1

- A group of systems management services which satisfy a set of logically related user requirements. (CCITT X.701)

Systems Management Functional Unit 1

- A named set of systems management services defined for the purpose of identifying specific sets of functionality where there is a requirement to establish or negotiate the use of such functionality between end systems or for reference purposes in other standards. (CCITT X.701)

Systems Management Process 2

- An application process participating in systems management. (ISO DP 10040)

Systems Management Service 1

- A named set of service primitives that provide a service for use in systems management. (CCITT. X.701)

Telecommunications Management Network (TMN) 2

- A Telecommunications Management Network provides the means used to transport and process information related to management functions for the telecommunications network. (CCITT M.30)

- Template 2
- Templates define standard formats for the documentation of managed object class definitions, conditional packages, specific errors, name bindings, attributes, group attributes, behaviour definitions, actions and notifications.
(ISO DP 10165-4)
- Terminals 1
- Equipments, located in close proximity to the user which present to the user the information received from the network in a form compatible with the user's requirements and also perform the complementary function from the user to the network.
(CCITT I.112)
- Thresholding 1
- A process involved in decision-making and compares the actual value of a parameter with a predetermined value to decide whether an alarm action needs to be initiated.
(CCITT M.30)
- TMN Management Function 1
- A TMN management function is the smallest part of the TMN management service as perceived by the user of the service. In reality it will generally consist of a sequence of actions on a defined managed object or objects.
(CCITT M.meth)
- TMN Management Service 1
- An area of management activity which provides for the support of an aspect of Operations Administration or Maintenance of the network being managed (e.g. Customer Administration, Traffic Measurement, Traffic Management etc.) Always described from the user perception of the OAM requirements.
(CCITT M.meth)
- TMN-Management Service Component 1
- A constituent part of a TMN Management Service, stating the requirements for actions to be performed on the managed network.
(CCITT M.meth)

Trail

- A Trail is a class of Managed objects in layer network which is responsible for the integrity of transfer of Characteristic information from one or more other layer networks. A trail is composed of 2 or more trail termination points, and one or more connections and associated connection termination points.
(CCITT M.gnm).

Trail Termination Point (TTP) 1

- The Trail Termination Point is a class of Managed Objects that delimit trail and ensures integrity. It is a subclass of Termination Point. It generates and/or terminates characteristic information of a layer network.
(CCITT M.gnm).

Transmission 2

- The physical process of propagating information signals through a physical medium.
(CCITT G.sn1)

Transport 2

- The functional process of transferring information between end points.
(CCITT G.sn1)

Transport Network Layer 2

- Part of a transport network solely concerned with the transfer of particular characteristic information, defined by data rate and format.
(CCITT SGIV)

User 1

- A person or a machine delegated by a customer to use the services and/or facilities of a telecommunications network.
(CCITT I.112)

Work Station (WS) 1

- A multi-functional terminal with local processing capabilities.
(CCITT M.30)

Work Station Function Block (WSF) 1

- A WSF is a grouping of equipment with local processing capabilities and terminal facilities to provide means for communications between the user and other function blocks, e.g. OSF, MF, DCF, NEF.
(CCITT M.30)

History

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