MTNM / MTOSI Dictionary

Abstract

The purpose of this document is to be the unique reference for all MTOSI / MTNM artefact identifiers in terms of:

- lexical conventions applicable depending on the semantic usage of the identifier
- definitions of the essential terms used throughout the different MTOSI / MTNM documents.

Section 1 presents the lexical conventions

Section 2 presents the list of all the identifiers used in MTOSI / MTNM with their long and short form to the following exceptions:

- the performance parameters identifiers are presented in SD1-28_PerformanceParameters.doc
- the probable cause identifiers are presented in SD1-33_ProbableCauses.doc
- the layer rate identifiers are presented in SD1-17_LayerRates.doc
- the layered parameter identifiers are presented in SD1-16_LayeredParameters.doc.

Section 3 presents the definitions of some key terms organized in two subsections covering the RM&O and SM&O terms respectively.

Section 4 presents a list of useful acronyms and abbreviations often used in descriptive parts of MTOSI / MTNM documents.

This dictionary is the master document for all the definitions. Other documents of the MTOSI / MTNM distribution may reuse a partial exact copy of the definitions presented in this dictionary.

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1 Lexical Conventions

1.1 Capitalization and Long/Short Forms

The lexical conventions below apply to the IA (Information Agreement) and the IIS (Interface Implementation Statement) specifications.
They do not apply to the BA (Business Agreement) specifications since the BA documents, which do not convey implementation information, use English text to express the requirements and the use cases in order to enhance readability.

The lexical conventions use two aspects which are orthogonal: the form (long or short) and the capitalization style.

1. Long form and short form

   An identifier may be used in two forms: a long form and a short form;

   examples:
   AlarmSeverityAssignmentProfile
   ASAP
   are respectively the long form and the short form of the same identifier.

   The two forms may not always exist for the same identifier.
   For instance:
   CommonTransmissionParameters is a long form and there is no short form for this identifier.

2. Capitalisation styles

   MTOSI / MTNM use three different styles for capitalization:

   - *UpperCamelCase style* (UccStyle): the identifier should start with an upper case letter and when constituted of compound words, the words must be joint without spaces and must be capitalized within the compound, even for component words representing acronyms (refer to [1]);

     examples:
     TransmissionDescriptor
     AsapRef

   - *lowerCamelCase style* (lccStyle): the identifier should start with a lower case letter and when constituted of compound words, the words must be joint without spaces and must be capitalized within the compound, even for component words representing acronyms (refer to [1]);

     examples:
     transmissionDescriptor
     performanceMonitoringPoint

asapRef
pmPoint

- *Constant style* (CONSTANT_STYLE): uppercase letters for each word and each word should be separated by an underscore;

  example:
  POINT_TO_MULTIPOINT

The table below specifies how to apply those conventions depending on the semantic nature of the identifier.

semantic nature	long form	short form	UccStyle	IccStyle	CONSTANT_STYLE
Class Id	X		X		
Interface Id	X		X		
Notification Id	X		X		
Data Type Id	X if 50 characters max	X if long form exceeds 50 characters	X		
Object Instance Id	X if there is no short form	X		X	
Attribute Id	X if there is no short form	X		X	
Attribute Enum-Value Id	X if there is no short form	X			X
Parameter Id	X if there is no short form	X		X	
Operation Id	X if 50 characters max	X if long form exceeds 50 characters		X	
Relationship Id		X	X		

1.2 Other Lexical Conventions

The following conventions apply to the IA and IIS specifications:

- Boolean typed attribute names always start with a verb like ‘is’, 'must', etc. (e.g., ‘isAbstract’) and the whole attribute name must be composed in a way that it is possible to answer it by "true" or "false".
- a reference to another object should use the “Ref” suffix
- plural should use “List” suffix
- use “Type” as sufix for types (IIS only)
- “EnumType” as suffix for enumeration types (IIS only)

2 The MTNM / MTOSI Identifiers

The table below presents the identifiers used in MTOSI / MTNM with their long and short form (when available) to the following exceptions:

- the performance parameters identifiers are presented in SD1-28_PerformanceParameters.doc
- the probable cause identifiers are presented in SD1-33_ProbableCauses.doc
- the layer rate identifiers are presented in SD1-17_LayerRates.doc
- the layered parameter identifiers are presented in SD1-16_LayeredParameters.doc
- the operations identifiers
- the interface identifiers

The identifiers in this table are organized in alphabetic order based on the long form.

As stated in section 1, the capitalization style to be used depends on the semantic usage of the identifier. The style used in the table below is arbitrary.

	Long Form	Short Form
A		
	AccessIdentifier	AID
	AlarmSeverityAssignmentProfile	ASAP
	AttributeValueChange	AVC
C		
	ConnectionTerminationPoint	CTP
	CommonTransmissionParameters	none
	CrossConnect	CC
	CustomerFacingService	CFS
	CustomerPremisesEquipment	CPE
D		
E		
	ElementManagementSystem	EMS
	EdgeTerminationPoint	EdgeTP
	Equipment	none
	EquipmenHolder	EH
	EquipmentProtectionGroup	EPG
F		
	FlowDomain	FD
	FlowDomainFragment	FDFr
	FloatingTerminationPoint	FTP

	Long Form	Short Form
G		
	GroupTerminationPoint	GTP
	GraphicalUserInterface	GUI
I		
	Information	Info
	Identifier	Id
L		
	Location	none
M		
	MatrixFlowDomain	MFD
	ManagedElement	ME
	MultiLayerRoutingArea	MLRA
	MultiLayerSubNetwork	MLSN
	MultiLayerSubNetworkPointPool	MLSNPP
N		
	NetworkElement	NE
	NetworkManagementSystem	NMS
	NonPreemptibleUnprotectedTraffic	NUT
O		
	OperationsSystem	OS
P		
	Party	none
	PartyRole	none
	Product	none
	ProductBundle	none
	ProductSpecification	none
	ProtectionGroup	PG
	PerformanceManagement PerformanceMonitoring	PM
	PhysicalTerminationPoint	PTP
	ProtectionGroup	PG
Q		
R		
	ResourceFacingService	RFS
	Route	none

	Long Form	Short Form
S		
	Service	none
	ServiceAccessPoint	SAP
	ServiceCatalog	none
	ServiceCharacteristicValue	SCV
	ServiceDefinition	none
	ServiceOrder	none
	ServiceOrderItem	none
	ServiceRequest	none
	ServiceSpecCharacteristic	none
	ServiceSpecCharacteristicValue	none
	ServiceSpecification	none
	ServiceSpecificationType	one
	ServiceTemplate	none
	StateChange	SC
	SubNetworkConnection	SNC
	SubNetworkPoint	SNP
	SubNetworkPointPool	SNPP
	Subscriber	
	Synchronisation	Sync
T		
	TandemConnectionMonitoring	TCM
	TerminationPoint	TP
	TrafficConditioning	TC
	ThresholdCrossingAlert	TCA
	TopologicalLink	TL
	TrafficDescriptor	TD
	TransmissionDescriptor	TMD
	TransportNetworkAssigned	TNA
U		
	User	none
V		
	VirtualConnection	VC
	VirtualPath	VP
	<x>Megabit / second; x = 2, 34, 140, …	<x>M

3 Definitions

3.1 General Purpose Terms

Term	Definition
Active Alarm	An alarm for which no clear notification has been sent by the Publishing OS
Actor / System	The term Actor is a keyword which refers to a coherent set of roles that an entity (human or nonhuman) outside of the system being modeler plays when interacting with one or more use cases. Systems can also be related to actors in that for two systems interacting with each other, each is an actor to the other. Actors represent system users. They help delimit the system and give a clearer picture of what the system should do. It is important to note that an actor interacts with, but has no control over the use cases. An actor is someone or something that: • Interacts with or uses the system • Provides input to and receives information from the system • Is external to the system and has no control over the use cases
Common Communication Vehicle (CCV)	Common Communication Vehicle (CCV) allows different (management) systems to communicate. An instantiation of the CCV could be a JMS bus or a point-to-point HTTP association. The TM Forum NGOSS documents also use the term common communication mechanism or Federated Communication Infrastructure.
Discovered Name	The Discovered Name of a network entity is the name used to announce the discovery of the network entity on the CCV before the network entity has been given a permanent name by responsible naming OS on the CCV.
Element Management System (EMS)	An EMS is an application (including the hardware and software components) that directly interfaces to a set of subtending managed elements. An EMS is typically provided by the supplier of the associated managed elements.
Management Domain	Management Domain is an entity that represents a group of various network resources such as managed elements, topological links and subnetworks. Management domain is mainly used for naming purposes.

Term	Definition
Multi-Technology Network Management (MTNM)	A TM Forum standard interface for NMS-EMS interactions.
Multi-Technology Operations Systems Interface (MTOSI)	A TM Forum standard interface set for OS-OS interactions.
Name	The term Name (or for emphasis MTOSI name) of a network entity refers to the unique name used by all entities on a given instance of the CCV when referring to the entity that represents the network entity.
Network Access Domain (NAD)	A Network Access Domain (NAD) represents a domain to which certain transmission network resources may be assigned.
Network Management System (NMS)	The Network Management System (NMS) is an application (including the hardware and software components) used by the SP or Network Provider to manage their networks as a whole. The NMS provides a end-to-end network view of the entire network enabling management of the NEs contained in the network. These NEs managed across the network are typically provided by multiple vendors. The NMS performs management functions across the Network Management Layer (NML) of the TMN. Some examples of these management functions include connection management and circuit fault correlation.
Operations System (OS) Steward (or stewarding) OS Top-level OS	Operations System (OS) refers to any management system covering SML, NML, and/or EML functionality. A Steward (or stewarding) OS is an OS owning a transport network resource. A Top-level OS is an OS that has direct access to the CCV.
Service Management System (SMS)	An Service Management System (SMS) is an application (including the hardware and software components) used by the SP to manage their services over the underlying network.
Service Oriented Architecture (SOA)	A Service Oriented Architecture (SOA) is a communication/computing architecture that entails a loosely coupled collection of services that communicate over a CCV. Each service interaction is self-contained and loosely coupled, so that each interaction is independent of any other interaction. SOAs typically bundle together capabilities into higher-level, business functions (as opposed to low-level components). In an SOA, services are exposed via interfaces with the following three properties: • The interface to the service is platform-independent. • The service interface can be dynamically located and invoked. • The service is self-contained. That is, the service maintains its own state.

Term	Definition
Subordinate OS	A Subordinate OS is an OS that has not direct access to the CCV, but it is managed by the top-level OS.
System	See Actor

3.2 Terms Related to RM&O

Term	Definition
ASAP AlarmSeverityAssignmentProfile	An Alarm Severity Assignment Profile (ASAP) maps alarm severities to specific alarm probable causes. An ASAP is contained within an EMS
CrossConnect	A Cross-Connect (XC) represents a physical connection within a Network Element (NE).
CTP Connection Termination Point	A Connection Termination Point (CTP) represents the actual or potential end point of either: 1. a Subnetwork Connection (SNC) or 2. an ATM Network Interface (ATMNI) at the Network Interface layer rate. A CTP may be contained by and be the client of a Physical Termination Point (PTP), a Floating Termination Point (FTP) or a CTP. A CTP may be contained by and be the server of an FTP or a CTP (via inverse multiplexing).
EdgeTP Edge Termination Point	An Edge Termination Point (Edge TP) is a Termination Point (TP) that is at an entrance or exit point of a MultiLayer Subnetwork (i.e. add-drop or TPs that terminate topological links between two Subnetworks)
EMS Element Management System	The Element Management System (EMS) is used to manage (represent) a portion of a network which contains one or more MultiLayer Subnetworks. The EMS is used as the root of the naming tree in the NML-EML interface.
Equipment	An Equipment represents the manageable physical components of a Network Element such as the circuit packs, the fans and any other type of replaceable unit within the Network Element.
EquipmentHolder	An Equipment Holder shall represent resources of the Network Element that are capable of holding other physical components. Specific resources that are represented by an Equipment Holder object shall be for instance racks (bays), shelves, and slots or sub-slots
EPG Equipment Protection Group	The Equipment Protection Group (EPG) represents Equipment protection.

Term	Definition
FTP Floating Termination Point	A Floating Termination Point (FTP) represents a Termination Point (TP) that is not directly supported by a physical port. An FTP is a TP without a physical layer that behaves both like a Physical Termination Point (PTP) and a Connection Termination Point (CTP): • FTPs (client side) behave like PTPs wherever PTPs are used in NML-EML Interface. • FTPs (server side) behave like CTPs wherever CTPs are used in NML-EML Interface
GTP Group Termination Point	A Group Termination Point (GTP) represents a sequence of Connection Termination Point (CTP)s (with a specific order) in the same Managed Element (ME).
ME Managed Element	A Managed Element (ME) represents the EMS (management) view of a Network Element (NE).
MLSN MultiLayer Subnetwork	A MultiLayer Subnetwork represents the topology provided by the EMS system. The main services provided within a MultiLayer Subnetwork are the set-up and tear-down of Subnetwork Connection (SNC).
NE Network Element	A Network Element (NE) is telecommunications hardware equipment that is addressable and manageable. NEs provide support or services to the user and can be managed through an Element Management System (EMS). An NE is a combination of hardware and software that primarily performs a telecommunications service function. A group of interconnected network elements form a network.
PMPoint Performance Monitoring Point	The Performance Monitoring Point (PMPoint) represents an access point at which performance monitoring and threshold supervision are provided for a set of PM parameters. The PMPoint is contained in a Termination Point (TP).
PTP Physical Termination Point	A Physical Termination Point (PTP) represents the actual or potential endpoint of a Topological Link. Essentially, this is a representation of a physical port. Examples of PTPs are T1 ports, T3 ports, OC-N optical ports, etc..
PG Protection Group	The Protection Group (PG) represents trail protection schemes.
Route	A Route represents the route of a Subnetwork Connection (SNC). An SNC route is represented as a partially ordered series of Cross Connects through which the SNC traverses.

Term	Definition
SNC Subnetwork Connection	A Subnetwork Connection (SNC) represents the relationship between two of the following types on end points: • Physical Termination Point (PTP) • Connection Termination Point (CTP) • Group Termination Point (GTP) • Floating Termination Point (FTP) An SNC represents a transparent end-to-end connection or a trail (closed or half-open) through or within a MultiLayer Subnetwork according to the roles associated to its end points. If the SNC represents a connection, its end points are CTPs or FTPs with the SNC's layer rate as connectable layer rate. In the case of GTPs (i.e. a Bundled connection) the SNC does not have an explicit layer rate. If the SNC represents a trail, its end points are CTPs, FTPs or PTPs. An SNC shall be contained in a MultiLayer Subnetwork.
TP Termination Point	A Termination Point (TP) represents a logical abstraction of an endpoint (actual or potential) of either: 1. A Topological Link or 2. a Subnetwork Connection (SNC) or 3. a Flow Domain Fragment (FDFr) or 4. a Cross Connection (CC).
TL Topological Link	A Topological Link (TL) is a physical link between two Physical Termination Point (PTP)s or a trail between two Termination Point (TP)s (e.g., an ATM link between two ATM NI CTPs), which are called aEnd TP and zEnd TP of the TL
TPPooll Termination Point Pool	A Termination Point Pool (TP Pool) represents a grouping (without a specific order) of Termination Point (TP)s or Group Termination Point (GTP)s from the same MultiLayer Subnetwork, for some administrative management purposes (e.g. bandwidth reservation, common routing etc.).
TrafficDescriptor	A Traffic Descriptor represents a collection of attributes, which are used to define bandwidth and Quality of Service (QoS) characteristics on a Connection Termination Point (CTP).
TMD Transmission Descriptor	A Transmission Descriptor (TMD) represents a collection of attributes, which are used to define multi-layered transmission parameters, and additional information parameters on a Termination Point (TP).
TCA Threshold Crossing Alert	A Threshold Crossing Alert (TCA) is a transient condition declared when a performance monitoring parameter reaches or exceeds a preset threshold.
TCA Parameter Threshold Crossing Alert Parameter	A Threshold Crossing Alert (TCA) Parameter represents the TCA parameters contained within a Threshold Crossing Alert (TCA) Parameter Profile.

3.3 Terms Related to SM&O

Term	Definition
CFS Customer Facing Service	A CustomerFacingService is an abstraction that defines the characteristics and behavior of a particular Service as seen by the Customer. A CustomerFacingService represents the realization of a Product within a provider's infrastructure. For example, a Hi Speed Internet Access, bundled in a Product instance, is realized by an internet connectivity Service.
Location	An area, position, or portion of space that somebody or something can occupy. It is further decomposed into a geographic place that relates to world-centric places and local location that relates to locally defined coordinate systems.
Party	Represents an individual, organization or organization unit. Party is an abstract concept that should be used in places where the business says something.
PartyRole	The part played by a party in a given context with any characteristics, such as expected pattern of behavior, attributes, and/or associations that it entails. PartyRole is an abstract concept that should be used in places where the business refers to a Party playing a Role.
Product	A Product is an instance of a ProductOffering as procured by a Customer, or other interested Party playing a PartyRole, appearing as a BusinessInteractionItem, which could take the form of an Agreement. ProductSpecificationCharacteristic(s) in part define the Product. A Product is realized as one or more Service(s) and/or Resource(s).
ProductBundle	A type of Product that is comprised of other Product(s). The other Product(s) may be ProductBundle(s) or ProductComponent(s).
ProductSpecification	A detailed description of a tangible or intangible object made available externally in the form of a ProductOffering to Customers or other Parties playing a PartyRole. A ProductSpecification may consist of other ProductSpecifications supplied together as a collection. Members of the collection may be offered in their own right. ProductSpecifications may also exist within groupings, such as ProductCategories, ProductLines, and ProductTypes.
RFS Resource Facing Service	ResourceFacingServices are "internal" Services that are required to support a CustomerFacingService. The Customer purchases a Product which is always realized within a provider's infrastructure by CustomerFacingServices, in turn decomposed into one or more component services facing the supported resources that is ResourceFacingServices, and directly by Resources (in case no associated strictly related-services, for example maintenance service of the resources). The Customer is not aware of the ResourceFacingServices.

Term	Definition
Service	All Services are characterized as either being a realization of a Product (CustomerFacingService) facing the Customer or how a Service is provisioned within a provider's infrastructure (ResourceFacingService) facing the resources. Services are defined by a ServiceSpecification. The purpose of the specification is twofold. First, it is used to define attributes, methods, and relationships that are common to all Services. Second, it provides a convenient point to define how Services interact with other parts business entities.
SAP Service Access Point	A point of entry where the service can be accessed. This point of entry is always associated (directly or indirectly) with a physical resource (such as a PTP, a CTP). However, sometimes the SAP is an object or a logical resource that contains or identifies the support of the physical resource. (Customer Premise Equipment, a Mobile Terminal, a Set-top Box, an internet address).
ServiceCatalog	A grouping of Service Specifications that share common characteristics. For example one catalog could group all internet related Service Specifications.
ServiceCharacteristicValue	A ServiceCharacteristicValue is a value passed over the Activation Interface to convey an individually set service characteristic (i.e. not reference in a ServiceTemplate) or to override a globally set characteristic value (present in a ServiceTemplate). A ServiceCharacteristicValue will apply only to the specific Service instance created.
ServiceDefinition	A type of Service Specification (from the SID) introduced for the purposes of Service Fulfillment. It defines ALL the ServiceSpecCharacteristics that must be used to create corresponding Service instances: • the ones which are set *globally* (the corresponding values are defined only in ServiceTemplates and are sometimes designated as "invariant") • and the ones which are set *individually* (the corresponding values can be defined only over the Activation Interface and are sometimes designated as "variant"). A ServiceSpecCharacteristic specified in a ServiceDefinition may be associated with ServiceSpecCharacteristicValues to restrict the typing information or to specify a default value.
ServiceOrderr	A Service Order is a type of request (as defined in the SID model). In particular, a service order is used to track and control the progress of a request for some action (e.g., provision or activation) on the services that comprise a given product instance. It should be mentioned that the OSS/J Order Management API (JSR 264) defines Service Order as follows: "A type of Request that represents a Customer Order's

Term	Definition
	products decomposed into the services through which the products are realized. Service Orders are generated within the confines of the SM&O layer."
ServiceOrderItem	Service Order Items are used to represent the order aspects of the services associated with a given service order. There is one service order item for each service associated with a service order.
ServiceRequest	A request made by the CRM layer to the SM&O layer as defined in the TMForum eTOM to take an action on one or more CFS instances given a product identifier, a product specification name and a related set of characteristics. This request can be realized by Template and by Value.
ServiceSpecCharacteristic	A characteristic quality or distinctive feature of a Service as represented in a ServiceSpecification (specialized as ServiceDefinition or ServiceTemplate). In particular it contains typing information which can be arbitrarily complex. A Service Spec Characteristic can be atomic or composite (also called "packages"). The components of a composite Service Spec Characteristic can in turn be atomic or composite.
ServiceSpecCharacteristicValue	A value that can be associated with a ServiceSpecCharacteristic in conformance with the specified typing information. • When associated with a ServiceSpecCharacteristic in a ServiceDefinition, it is used to restrict the typing information (in this case several ServiceSpecCharacteristicValues may be used) or to specify additional information (e.g. default value). • When associated with a ServiceSpecCharacteristic in a ServiceTemplate, it will apply *globally* to all the Service instances conformant to this ServiceTemplate. In this case, the ServiceSpecCharacteristicValue is set at the design stage when the ServiceTemplate is created, and it cannot be modified afterwards. A ServiceSpecCharacteristic present in a ServiceTemplate is sometimes qualified as being "invariant", since it cannot be modified after the creation of the ServiceTemplate (the term "*globally set*" can also be used") A ServiceSpecCharacteristic which value is passed over the Activation Interface is sometimes qualified as being "variant", since the value must be given for each Service instance created (the term "*individually set*" can also be used).
ServiceSpecification	Changeable as well as invariant attributes, methods, relationships and constraints which define a Service. It can be conceptually thought of as a template that different Service instances can be instantiated from. Each of these Service instances will have the same invariant characteristics. However, the other characteristics of the instantiated Service will be specific to each instance.

Term	Definition
ServiceSpecificationType	The ServiceSpecificationType class defines a generic category of ServiceSpecifications. Each ServiceSpecificationType serves to group a set of particular ServiceSpecifications that share the same behavior and other semantics. One result of this is to be able to more efficiently define a set of related Services that can be grouped together to form a higher-level Service. For example, a given higher-level Service might include VPN and QoS Services. If these Services are always used together, then they can be categorized using a common type.
ServiceTemplate	A type of Service Specification (from the SID) introduced for the purposes of Service Fulfillment. It defines specific ServiceSpecCharacteristicsValues for the globally set ServiceSpecCharacteristics that can be dynamically referenced by multiple Service instances during their lifecycle span. A ServiceTemplate is checked against its associated ServiceDefinition by verifying the presence of the ServiceSpecCharacteristics and the validity of the corresponding assigned ServiceSpecCharacteristicsValues. Each of the associated Service instances will have the same invariant characteristics which values are taken from the ServiceTemplate. However, when activating a Service, it may be possible to specify over the Activation Interface a ServiceCharacteristicsValue which overrides the corresponding ServiceSpecCharacteristicValue available in the associated ServiceTemplate. In this case the new proposed value applies only to the Service instance created, and the ServiceSpecCharacteristicValue in the ServiceTemplate is not modified. In order not to descend into sub-classing, the ServiceTemplate is considered to be generic such that it serves as a framework for defining technology or service specific templates. Other TMForum groups, or service providers, may use the service template as a foundation for building or populating service templates.
Subscriber	A Subscriber is an entity (associated with one or more users) that is engaged in a service subscription with a service provider. The subscriber is allowed to subscribe and unsubscribe services, to register a user or a list of users authorized to use these services, and also to set the limits relative to the use that associated users make of these services.
User	A user is a Person, Organization, Service, or Resource that employs one or more Products, Services, and/or Resources that are provided by a business for some purpose. Human users include different types of users, such as an end-user or an administrative user.

4 Useful Acronyms and Abbreviations

The table in this section shows acronyms and abbreviations often used in MTOSI / MTNM documents. As opposed to MTOSI / MTNM Identifiers, those acronyms and abbreviations are NOT used as formal artifacts in the UML (IA) or XML specifications (IIS), but, instead they are used in textual descriptions or comments.

	Acronym / Abbreviation	Meaning
A		
	ABR	Available Bit Rate
	ADSL	Asymmetric Digital Subscriber Line
	ASON	Automatically Switched Optical Network
	ASTN	Automatically Switched Transport Network
	ATM	Asynchronous Transfer Mode
C		
	CBR	Constant Bit Rate
	CCV	Common Communication Vehicle
	CO	Central Office
	CoS	Class Of Service
	CORBA	Common Object Request Broker Architecture
D		
	DRI	Dual Ring Interconnect
	DSL	Digital Subscriber Line
	DSR	Digital Signal Rate
E		
	EML	Element Management Layer
	EMS	Element Management System
F		
	FR	Frame Relay
G		
	GARP	Generic Attribute Registration Protocol
I		
	IM	Information Model Inverse Multiplexing
	IMA	Inverse Multiplexing For ATM
L		
	LAG	Link Aggregation Group
	LCAS	Link Capacity Adjustment Scheme

	Acronym / Abbreviation	Meaning
		Location
M		
	MBitPS	Mega Bits Per Seconds
	MS	Multiplex Section
	MSP	Multiplex Section Protection
	MTNM	Multi-Technology Network Management
	MTOSI	Multi-Technology Operations Systems Interface
N		
	NAD	Network Access Domain
	NI	Network Interface
	NNI	Network Network Interface
	NML	Network Management Layer
	NMS	Network Management System
O		
	OTN	Optical Transport Network
P		
	PSR	Path Switched Ring
Q		
	QOS	Quality Of Service
R		
	RS	Regenerator Section
	RFS	Resource Facing Service
	RU	Remote Unit
	RPR	Resilient Packet Ring
S		
	SLA	Service Level Agreement
	SHDSL	Symmetric High Bitrate Digital Subsciber Line
	SDH	Synchronous Digital Hierarchy
	SMS	Service Management System
	SONET	Synchronous Optical Network
	SOA	Service Oriented Architecture
T		
U		
	UBR	Unspecified Bit Rate
	UNI	User Network Interface

	Acronym / Abbreviation	Meaning
V		
	VBR	Variable Bit Rate
	VCAT	Virtual Concatenation
	VDSL	Very High Speed Digital Subscriber Line
X		
	XML	eXtensible Markup Language

Abbreviation	Meaning
SNPP	SubNetwork Point Pool
MSSPRing	Multiplex Section Shared Protection Ring
nrt-VBR	Non-Real-Time Variable Bit Rate
rt-VBR	Real-Time Variable Bit Rate

5 References

[1] CamelCase in Wikipedia

6 Administrative Appendix

6.1 Document History

Version Number	Date Modified	Modified by:	Description of changes
1.0	Oct 2007		This is the first version of this document
1.1	April 2009		Added the lexical conventions and completing the exhaustive list of the MTOSI / MTNM identifiers separate from the list of acronyms and abbreviations.
1.2	Dec 2009		Added “SCV” as short name for ServiceCharacteristicValue
1.3	June 2011		Removed “mTOP” from the title and the name of the document. Added section 3.1 (terms which were previously defined in the FMW BA)

6.2 Acknowledgments

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6.3 How to comment on this document

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Please be specific, since your comments will be dealt with by the team evaluating numerous inputs and trying to produce a single text. Thus we appreciate significant specific input. We are looking for more input than wordsmith" items, however editing and structural help are greatly appreciated where better clarity is the result.