



UNIÓN INTERNACIONAL DE TELECOMUNICACIONES

UIT-T

SECTOR DE NORMALIZACIÓN
DE LAS TELECOMUNICACIONES
DE LA UIT

X.739

Enmienda 1
(08/97)

SERIE X: REDES DE DATOS Y COMUNICACIÓN
ENTRE SISTEMAS ABIERTOS

Gestión de interconexión de sistemas abiertos –
Funciones de gestión y funciones de arquitectura de
gestión distribuida abierta

Tecnología de la información – Interconexión de
sistemas abiertos – Gestión de sistemas: Objetos
métricos y atributos

**Enmienda 1: Formularios de declaración de
conformidad de implementación**

Recomendación UIT-T X.739 – Enmienda 1

(Anteriormente Recomendación del CCITT)

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NORMA INTERNACIONAL 10164-11

RECOMENDACIÓN UIT-T X.739

TECNOLOGÍA DE LA INFORMACIÓN – INTERCONEXIÓN DE SISTEMAS ABIERTOS – GESTIÓN DE SISTEMAS: OBJETOS MÉTRICOS Y ATRIBUTOS

ENMIENDA 1

Formularios de declaración de conformidad de implementación

Resumen

La Rec. UIT-T X.739 | ISO/CEI 10164-11 ofrece una amplia gama de opciones entre las que el implementador puede elegir para desarrollar un producto. Esto significa que un producto de sistema de operaciones (OS, *operations system*) de un vendedor que necesite interfuncionar con un producto de OS de otro vendedor debe desarrollarse según un acuerdo común y explícito entre los respectivos realizadores sobre las opciones reales que han de incorporarse en sus productos informáticos para mensajes basados en la Recomendación X.739. Esta enmienda permite especificar las opciones de mensaje de manera tal que la última documentación de las opciones reales elegidas para el producto sea más explícita. El resultado es una posible reducción del tiempo necesario para realizar las pruebas de interoperabilidad entre un sistema de gestión de un vendedor y un sistema de gestión de otro vendedor, ya que los diseñadores de los productos disponen así de una especificación de mensajes más explícita.

Orígenes

El texto de la Recomendación UIT-T X.739, enmienda 1 se aprobó el 9 de agosto de 1997. Su texto se publica también, en forma idéntica, como Norma Internacional ISO/CEI 10164-11.

PREFACIO

La UIT (Unión Internacional de Telecomunicaciones) es el organismo especializado de las Naciones Unidas en el campo de las telecomunicaciones. El UIT-T (Sector de Normalización de las Telecomunicaciones de la UIT) es un órgano permanente de la UIT. Este órgano estudia los aspectos técnicos, de explotación y tarifarios y publica Recomendaciones sobre los mismos, con miras a la normalización de las telecomunicaciones en el plano mundial.

La Conferencia Mundial de Normalización de las Telecomunicaciones (CMNT), que se celebra cada cuatro años, establece los temas que han de estudiar las Comisiones de Estudio del UIT-T, que a su vez producen Recomendaciones sobre dichos temas.

La aprobación de Recomendaciones por los Miembros del UIT-T es el objeto del procedimiento establecido en la Resolución N.º 1 de la CMNT.

En ciertos sectores de la tecnología de la información que corresponden a la esfera de competencia del UIT-T, se preparan las normas necesarias en colaboración con la ISO y la CEI.

NOTA

En esta Recomendación, la expresión "Administración" se utiliza para designar, en forma abreviada, tanto una administración de telecomunicaciones como una empresa de explotación reconocida de telecomunicaciones.

PROPIEDAD INTELECTUAL

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En la fecha de aprobación de la presente Recomendación, la UIT no ha recibido notificación de propiedad intelectual, protegida por patente, que puede ser necesaria para aplicar esta Recomendación. Sin embargo, debe señalarse a los usuarios que puede que esta información no se encuentre totalmente actualizada al respecto, por lo que se les insta encarecidamente a consultar la base de datos sobre patentes de la TSB.

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NORMA INTERNACIONAL

RECOMENDACIÓN UIT-T

TECNOLOGÍA DE LA INFORMACIÓN – INTERCONEXIÓN DE SISTEMAS ABIERTOS – GESTIÓN DE SISTEMAS: OBJETOS MÉTRICOS Y ATRIBUTOS

ENMIENDA 1

Formularios de declaración de conformidad de implementación

1) Subcláusula 2.1

Añádase la siguiente referencia por orden numérico:

- Recomendación UIT-T X.724 (1996) | ISO/CEI 10165-6:1997, *Tecnología de la información – Interconexión de sistemas abiertos – Estructura de la información de gestión: Requisitos y directrices para los formularios de declaración de conformidad de implementación asociados con la gestión de interconexión de sistemas abiertos.*
- Recomendación X.735 del CCITT (1992) | ISO/CEI 10164-6:1993, *Tecnología de la información – Interconexión de sistemas abiertos – Gestión de sistemas: Función control de ficheros registro.*
- Recomendación UIT-T X.738 (1993) | ISO/CEI 10164-13:1995, *Tecnología de la información – Interconexión de sistemas abiertos – Gestión de sistemas: Función de sumario.*

2) Subcláusula 2.2

Añádanse las siguientes referencias por orden numérico:

- Recomendación X.290 del CCITT (1992), *Metodología y marco de las pruebas de conformidad de interconexión de sistemas abiertos de las Recomendaciones sobre los protocolos para aplicaciones del UIT-T – Conceptos generales.*

ISO/CEI 9646-1:1994, *Information technology – Open Systems Interconnection – Conformance testing methodology and framework – Part 1: General concepts.*
- Recomendación X.291 del CCITT (1992), *Metodología y marco de las pruebas de conformidad de interconexión de sistemas abiertos de las Recomendaciones sobre los protocolos para aplicaciones del CCITT – Especificación de sucesiones de pruebas abstractas.*

ISO/CEI 9646-2:1994, *Information technology – Open Systems Interconnection – Conformance testing methodology and framework – Part 2: Abstracts Test Suite specification.*
- Recomendación UIT-T X.296 (1995), *Metodología y marco de las pruebas de conformidad de interconexión de sistemas abiertos de las Recomendaciones sobre los protocolos para aplicaciones del UIT-T – Declaración de conformidad de implementación.*

ISO/CEI 9646-7:1995, *Information technology – Open Systems Interconnection – Conformance testing methodology and framework – Part 7: Implementation Conformance Statements.*

3) Subcláusula 3.7

Añádase el siguiente texto antes de 3.7 y modifíquese en consecuencia la numeración en el resto de la subcláusula:

3.7 Definiciones de las pruebas de conformidad de interconexión de sistemas abiertos

En esta Recomendación | Norma Internacional se utilizan los siguientes términos, definidos en la Rec. UIT-T X.290 | ISO/CEI 9646-1:

- a) formulario de PICS;
- b) declaración de conformidad de implementación de protocolo;
- c) declaración de conformidad de sistema.

4) Cláusula 4

Añádanse las siguientes abreviaturas por orden alfabético:

ICS	Declaración de conformidad de implementación (<i>implementation conformance statement</i>)
MCS	Resumen de conformidad de gestión (<i>management conformance summary</i>)
MICS	Resumen de conformidad de información de gestión (<i>management information conformance summary</i>)
MIDS	Declaración de definición de información de gestión (<i>management information definition statement</i>)
MOCS	Declaración de conformidad de objeto gestionado (<i>managed object conformance statement</i>)
MRCS	Declaración de conformidad de relación gestionada (<i>managed relationship conformance statement</i>)
PICS	Declaración de conformidad de implementación de protocolo (<i>protocol implementation conformance statement</i>)

5) Cláusula 13

Sustitúyase esta cláusula por el texto siguiente:

13 Conformidad

Las implementaciones que alegan ser conformes a esta Recomendación | Norma Internacional deberán cumplir los requisitos de conformidad definidos en las subcláusulas siguientes.

13.1 Conformidad estática

La implementación se ajustará a los requisitos de esta Recomendación | Norma Internacional en el cometido de gestor, el cometido de agente, o en ambos. En el cuadro E.1 se alegará la conformidad por lo menos con un cometido.

Si se alega conformidad con el cometido de gestor, la implementación deberá soportar por lo menos una operación o notificación de gestión de los objetos gestionados especificados por esta Recomendación | Norma Internacional. Los requisitos de conformidad con el cometido de gestor para dichas operaciones y notificaciones de gestión figuran en el cuadro E.2 y en otros cuadros del anexo E.

Si se alega conformidad con el cometido de agente, la implementación deberá soportar uno o más casos de clases de objetos gestionados identificados en el cuadro E.3 y de otros cuadros del anexo E.

La implementación soportará la sintaxis de transferencia derivada de las reglas de codificación especificadas en la Rec. X.209 del CCITT | ISO/CEI 8825 denominadas {joint-iso-itu-t asn1(1) basicEncoding(1)} para los tipos de datos abstractos referenciados por las definiciones que se alega sustentar.

13.2 Conformidad dinámica

Las implementaciones que alegan ser conformes a esta Recomendación | Norma Internacional deberán soportar los elementos del procedimiento y definiciones de semántica correspondientes a las definiciones que se alega sustentar.

13.3 Requisitos de la declaración de conformidad de implementación de gestión

Todos los formularios de MCS, MICS, MOCS y MRCS conformes a esta Recomendación | Norma Internacional serán técnicamente idénticos a los formularios especificados en los anexos E, F, G y H que mantienen la numeración de los cuadros y los números de índices de los ítems, y sólo difieren en la paginación y encabezamientos de página.

El proveedor de una implementación que alega ser conforme a esta Recomendación | Norma Internacional deberá rellenar una copia del resumen de conformidad de gestión (MCS, *management conformance summary*) que figura en el anexo E como parte de los requisitos de conformidad junto con cualquier otro formulario ICS indicado como aplicable según dicho MCS. Un ICS conforme a esta Recomendación | Norma Internacional:

- describirá una implementación que se conforma con esta Recomendación | Norma Internacional;
- habrá sido completado de acuerdo con las instrucciones dadas en la Rec. UIT-T X.724 | ISO/CEI 10165-6;
- incluirá la información necesaria para identificar inequívocamente al proveedor y a la implementación.

6) Nuevos anexos E a N

Añádanse los siguientes anexos:

Anexo E¹⁾

Formulario de MCS

(Este anexo es parte integrante de la presente Recomendación | Norma Internacional)

E.1 Introduction

E.1.1 Purpose and structure

The Management Conformance Summary (MCS) is a statement by a supplier that identifies an implementation and provides information on whether the implementation claims conformance to any of the listed set of documents that specify conformance requirements to OSI management.

The MCS proforma is a document, in the form of a questionnaire that when completed by the supplier of an implementation becomes the MCS.

E.1.2 Instructions for completing the MCS proforma to produce an MCS

The supplier of the implementation shall enter an explicit statement in each of the boxes provided. Specific instruction is provided in the text which precedes each table.

E.1.3 Symbols, abbreviations and terms

For all annexes of this Recommendation | International Standard, the following common notations, defined in CCITT Rec. X.291 | ISO/IEC 9646-2 and ITU-T Rec. X.296 | ISO/IEC 9646-7 are used for the Status column:

- m Mandatory;
- o Optional;
- c Conditional;
- x Prohibited;
- Not applicable or out of scope.

NOTE 1 – 'c', 'm', and 'o' are prefixed by a 'c:' when nested under a conditional or optional item of the same table.

NOTE 2 – 'o' may be suffixed by '.N' (where N is a unique number) for mutually exclusive or selectable options among a set of status values. Support of at least one of the choices (from the items with the same values of N) is required.

For all annexes of this Recommendation | International Standard, the following common notations, defined in CCITT Rec. X.291 | ISO/IEC 9646-2 and ITU-T Rec. X.296 | ISO/IEC 9646-7 are used for the Support column:

- Y implemented;
- N not implemented;
- no answer required;
- Ig the item is ignored (i.e. processed syntactically but not semantically).

¹⁾ **Comunicado sobre derechos de autor del formulario de MCS**

Los usuarios de esta Recomendación | Norma Internacional pueden reproducir libremente el formulario de MCS de este anexo a fin de que pueda ser utilizado para los fines previstos, y pueden además publicar el MCS cumplimentado. En la Rec. UIT-T X.724 | ISO/CEI 10165-6 se especifican las instrucciones para rellenar el formulario de MCS.

E.1.4 Table format

Some of the tables in this Recommendation | International Standard have been split because the information is too wide to fit on the page. Where this occurs, the index number of the first block of columns are the index numbers of the corresponding rows of the remaining blocks of columns. A complete table reconstructed from the constituent parts should have the following layout:

Index	First block of columns	Second block of columns	Etc.
-------	------------------------	-------------------------	------

In this Recommendation | International Standard the constituent parts of the table appear consecutively, starting with the first block of columns.

When a table with subrows is too wide to fit on a page, the continuation tables(s) have been constructed with index numbers identical to the index numbers in the corresponding rows of the first table, and with subindex numbers corresponding to the subrows within each indexed row. For example, if Table X.1 has 2 rows and the continuation of Table X.1 has 2 subrows for each row, the tables are presented as follows:

Table X.1 – Title

Index					Support		G
	A	B	C	D	E	F	
1	a	b	–				
2	a	b	–				

Table X.1 – Title (continued)

Index	Subindex	H	I	J	K	L
1	1.1	h	i	j		
	1.2	h	i	j		
2	2.1	h	i	j		
	2.2	h	i	j		

A complete table reconstructed from the constituent parts should have the following layout:

					Support								
Index	A	B	C	D	E	F	G	Subindex	H	I	J	K	L
1	a	b	–					1.1	h	i	j		
								1.2	h	i	j		
2	a	b	–					2.1	h	i	j		
								2.2	h	i	j		

References made to cells within tables shall be interpreted as references within reconstructed tables. In the example above, the reference X.1/1d corresponds with the blank cell in the column G for row with Index 1, and X.1/1.2b corresponds to the blank cell in column L for row with Subindex 1.2.

E.2 Identification of the implementation

E.2.1 Date of statement

The supplier of the implementation shall enter the date of this statement in the box below. Use the format DD-MM-YYYY.

Date of statement

E.2.2 Identification of the implementation

The supplier of the implementation shall enter information necessary to uniquely identify the implementation and the system(s) in which it may reside, in the box below.

E.2.3 Contact

The supplier of the implementation shall provide information on whom to contact if there are any queries concerning the content of the MCS, in the box below.

E.3 Identification of the Recommendation | International Standard in which the management information is defined

The supplier of the implementation shall enter the title, reference number and date of the publication of the Recommendation | International Standard which specifies the management information to which conformance is claimed, in the box below.

Recommendation | International Standard to which conformance is claimed

E.3.1 Technical corrigenda implemented

The supplier of the implementation shall enter the reference numbers of implemented technical corrigenda which modify the identified Recommendation | International Standard, in the box below.

E.3.2 Amendments implemented

The supplier of the implementation shall state the titles and reference numbers of implemented amendments to the identified Recommendation | International Standard, in the box below.

--

E.4 Management conformance summary

The supplier of implementation shall state the capabilities and features supported and provide summary of conformance claims to Recommendations | International Standards using the tables in this annex.

The supplier of the implementation shall specify the roles that are supported in Table E.1.

Table E.1 – Roles

Index	Roles supported	Status	Support	Additional information
1	Manager role support	o.1		
2	Agent role support	o.1		

The supplier of the implementation shall specify support for management information in the manager role, in Table E.2.

Table E.2 – Manager role minimum conformance requirement

Index	Item	Status	Support	Additional information
1	Operations on managed objects	c1		
2	Object creation notification from at least one metric managed object	c1		
3	Object deletion notification from at least one metric managed object	c1		
4	Attribute value change notification from at least one metric managed object	c1		
5	State change notification from at least one metric managed object	c1		
6	Quality of service alarm notification from at least one metric managed object	c1		
c1: if E.1/1a then o.2 else –.				

The supplier of the implementation shall specify support for management information in the agent role, in Table E.3.

Table E.3 – Agent role minimum conformance requirement

Index	Item	Status	Support	Additional information
1	Algorithm indicating mean monitor object class	c2		
2	Mean and minmax monitor object class	c2		
3	Mean and percentile monitor object class	c2		
4	Mean and variance monitor object class	c2		
5	Mean monitor object class	c2		
6	Monitor metric object class	c2		
7	Moving average mean monitor object class	c2		
c2: if E.1/2a then o.3 else –.				

Table E.4 – Logging of event records

Index	Item	Status	Support	Additional information
1	Does the implementation support logging of event records in agent role?	c3		
c3: if E.1/2a then o.3 else –.				

NOTE – Conformance to this Recommendation | International Standard does not require conformance to CCITT Rec. X.735 | ISO/IEC 10164-6.

The supplier of the implementation shall provide information on claims of conformance to any of the Recommendation | International Standards summarized in the Tables E.5 to E.8. For each Recommendation | International Standard that the supplier of the implementation claims conformance to, the corresponding conformance statement(s) shall be completed, or referenced by, the MCS. The supplier of the implementation shall complete the Support, Table numbers and Additional information columns.

In Tables E.6 to E.8, the Status column is used to indicate whether the supplier of the implementation is required to complete the referenced tables or referenced items. Conformance requirements are as specified in the referenced tables or referenced items and are not changed by the value of the MCS Status column. Similarly, the Support column is used by the supplier of the implementation to indicate completion of the referenced tables or referenced items.

Table E.5 – PICS support summary

Index	Identification of the document that includes the PICS proforma	Table numbers of PICS proforma	Description	Constraints and values	Status	Support	Table numbers of PICS	Additional information
1	CCITT Rec. X.730 ISO/IEC 10164-1	Annex E all tables	SM application context		o			

Table E.6 – MOCS support summary

Index	Identification of the document that includes the MOCS proforma	Table numbers of MOCS proforma	Description	Constraints and values	Status	Support	Table numbers of MOCS	Additional information
1	CCITT Rec. X.733 ISO/IEC 10164-4	Annex C all tables	alarmRecord	–	c4			
2	CCITT Rec. X.730 ISO/IEC 10164-1	Annex C all tables	objectCreation, objectDeletion and attribute valueChange records	–	c4			
3	CCITT Rec. X.731 ISO/IEC 10164-2	Annex C all tables	stateChange Record	–	c4			
4	CCITT Rec. X.739 ISO/IEC 10164-11	Annex G	meanAndVarianceMonitor	–	c5			
5	CCITT Rec. X.739 ISO/IEC 10164-11	Annex H	meanAndPercentileMonitor	–	c7			
6	CCITT Rec. X.739 ISO/IEC 10164-11	Annex I	meanAndMinMaxMonitor	–	c6			
7	CCITT Rec. X.739 ISO/IEC 10164-11	Annex J	movingAverageMean Monitor	–	c11			
8	CCITT Rec. X.739 ISO/IEC 10164-11	Annex K	algorithmIndicatingMeanMonitor	–	c8			

Table E.6 (concluded)

Index	Identification of the document that includes the MOCS proforma	Table numbers of MOCS proforma	Description	Constraints and values	Status	Support	Table numbers of MOCS	Additional information
9	CCITT Rec. X.739 ISO/IEC 10164-11	Annex L	meanMonitor	–	c9			
10	CCITT Rec. X.739 ISO/IEC 10164-11	Annex M	monitorMetric	–	c10			
c4: if (E.3/1a or E.3/2a or E.3/3a or E.3/4a or E.3/5a or E.3/6a or E.3/7a) and E.4/1a then m else –. c5: if E.3/4a then m else –. c6: if E.3/2a then m else –. c7: if E.3/3a then m else –. c8: if E.3/1a then m else –. c9: if E.3/5a then m else –. c10: if E.3/6a then m else –. c11: if E.3/7a then m else –.								

Table E.7 – MRCS support summary

Index	Identification of the document that includes the MRCS proforma	Table numbers of MRCS proforma	Description	Constraints and values	Status	Support	Table numbers of MRCS	Additional information
1	ITU-T Rec. X.739 ISO/IEC 10164-11	Annex N all tables	scanner-system	–	c12			
1	ITU-T Rec. X.738 ISO/IEC 10164-13	Annex O all tables	conflictingPackagesScanner-system	–	c12			
1	CCITT Rec. X.735 ISO/IEC 10164-6	Annex D Item D.1/1	logRecord-log	–	c12			
c12: if E.3/1a or E.3/2a or E.3/3a or E.3/4a or E.3/5a or E.3/6a or E.3/7a then o else –.								

Table E.8 – MICS support summary

Index	Identification of the document that includes the MICS proforma	Table numbers of MICS proforma	Description	Constraints and values	Status	Support	Table numbers of MICS	Additional information
1	CCITT Rec. X.739 ISO/IEC 10164-11	Tables F.1 and F.2	management operations	–	c13			
2	CCITT Rec. X.730 ISO/IEC 10164-1	Table B.1	objectCreation, objectDeletion and attributeValueChange notifications	–	c14			
3	CCITT Rec. X.731 ISO/IEC 10164-2	Table B.1	stateChange notification	–	c15			
4	CCITT Rec. X.733 ISO/IEC 10164-4	Annex B Item B.1/1	qualityOfServiceAlarm notification	–	c16			
c13: if E.2/1a then m else –. c14: if E.2/2a or E.2/3a or E.3/4a then m else –. c15: if E.2/5a then m else –. c16: if E.2/6a then m else –.								

Anexo F²⁾**Formulario de MICS**

(Este anexo es parte integrante de la presente Recomendación | Norma Internacional)

F.1 Introduction

The purpose of this MICS proforma is to provide a mechanism for a supplier of an implementation which claims conformance, in the manager role, to management information specified in this Recommendation | International Standard, to provide conformance information in a standard form.

F.2 Instructions for completing the MICS proforma to produce a MICS

The MICS proforma contained in this annex is comprised of information in tabular form, in accordance with ITU-T Rec. X.724 | ISO/IEC 10165-6. In addition to the general guidance given in ITU-T Rec. X.724 | ISO/IEC 10165-6, the Additional information column shall be used to identify the object classes for which the management operations are supported. The supplier of the implementation shall state which items are supported in the tables below and if necessary, provide additional information.

F.3 Symbols, abbreviations and terms

The following abbreviations are used throughout the MICS proforma:

dmi-att joint-iso-itu-t ms(9) smi(3) part2(2) attribute(7)

moa-att joint-iso-itu-t ms(9) function(2) part11(11) attribute(7)

The notations used for the Status and Support columns are specified in E.1.3.

F.4 Statement of conformance to the management information**F.4.1 Attributes**

The specifier of a manager role implementation that claims to support management operations on the attributes specified in this Recommendation | International Standard shall import a copy of the following tables and complete them.

Table F.1 – Attribute support

Index	Attribute template label	Value of object identifier for attribute	Constraints and values	Set by create		Get		Replace	
				Status	Support	Status	Support	Status	Support
1	objectClass	{dmi-att 65}	–	c1		o.4		–	
2	nameBinding	{dmi-att 63}	–	c1		o.4		–	
3	packages	{dmi-att 66}	–	c1		o.4		–	
4	allomorphs	{dmi-att 50}	–	c1		o.4		–	
5	scannerId	{moa-att 25}	–	c1		o.4		–	
6	granularityPeriod	{moa-att 23}	–	c1		o.4		o.4	
7	administrativeState	{dmi-att 31}	–	c1		o.4		o.4	
8	operationalState	{dmi-att 35}	–	–		o.4		–	
9	availabilityStatus	{dmi-att 33}	–	–		o.4		–	

2) Comunicado sobre derechos de autor del formulario de MICS

Los usuarios de esta Recomendación | Norma Internacional pueden reproducir libremente el formulario de MICS de este anexo a fin de que pueda ser utilizado para los fines previstos, y pueden además publicar el MICS cumplimentado. En la Rec. UIT-T X.724 | ISO/CEI 10165-6 se especifican las instrucciones para rellenar el formulario de MICS.

Table F.1 (continued)

				Set by create		Get		Replace	
10	periodSynchronizationTime	{moa-att 24}	–	c1		o.4		o.4	
11	startTime	{dmi-att 68}	–	c1		o.4		o.4	
12	stopTime	{dmi-att 69}	DMI default	c1		o.4		o.4	
13	intervalsOfDay	{dmi-att 57}	DMI default	c1		o.4		o.4	
14	weekMask	{dmi-att 71}	DMI default	c1		o.4		o.4	
15	schedulerName	{dmi-att 67}	–	c1		o.4		–	
16	observedObjectInstance	{moa-att 16}	–	c1		o.4		–	
17	observedAttributeId	{moa-att 15}	–	c1		o.4		–	
18	derivedGauge	{moa-att 2}	–	–		o.4		–	
19	previousScanCounterValue	{moa-att 1}	–	c1		o.4		o.4	
20	proceduralStatus	{dmi-att 36}	–	–		o.4		–	
21	modulusValue	{moa-att 1}	–	c1		o.4		o.4	
22	previousScanGaugeValue	{moa-att 20}	–	c1		o.4		o.4	
23	severityIndicatingGaugeThreshold	{moa-att 18}	–	c1		o.4		o.4	
24	specificProblemIndicator	{moa-att 19}	–	c1		o.4		o.4	
25	derivedGaugeTimestamp	{moa-att 3}	–	–		o.4		–	
26	estimateOfMean	{moa-att 7}	–	c2		o.4		o.4	
27	movingTimePeriod	{moa-att 13}	–	c2		o.4		o.4	
28	estimateOfMeanSeverityIndicatingGaugeThreshold	{moa-att 6}	–	c2		o.4		o.4	
29	algorithmIdentifier	{moa-att 26}	–	c3		o.4		o.4	
30	estimateOfLargest	{moa-att 4}	–	c4		o.4		o.4	
31	estimateOfSmallest	{moa-att 9}	–	c4		o.4		o.4	
32	secondMovingTimePeriod	{moa-att 17}	–	c5		o.4		o.4	
33	estimateOfVariance	{moa-att 10}	–	c6		o.4		o.4	
34	estimateOfLargestInReplication	{moa-att 21}	–	c7		o.4		o.4	
35	estimateOfSmallestInReplication	{moa-att 22}	–	c7		o.4		o.4	
36	estimateOfMedian	{moa-att 7}	–	c7		o.4		o.4	
37	estimateOf100-PCTPercentile	{moa-att 11}	–	c7		o.4		o.4	
38	estimateOfPCTPercentile	{moa-att 8}	–	c7		o.4		o.4	
39	numberOfReplications	{moa-att 14}	–	c7		o.4		o.4	
40	configurablePCT	{moa-att 0}	–	c7		o.4		o.4	
c1: if F.2/1a or F.3/1a or F.4/1a or F.5/1a or F.6/1a or F.7/1a or F.8/1a then o.4 else –. c2: if F.2/1a or F.3/1a or F.4/1a or F.5/1a or F.6/1a or F.7/1a then o.4 else –. c3: if F.6/1a then o.4 else –. c4: if F.4/1a then o.4 else –. c5: if F.2/1a or F.3/1a then o.4 else –. c6: if F.2/1a then o.4 else –. c7: if F.3/1a then o.4 else –.									

Table F.1 (concluded)

Index	Add		Remove		Set to default		Additional information
	Status	Support	Status	Support	Status	Support	
1	–		–		–		
2	–		–		–		
3	–		–		–		
4	–		–		–		
5	–		–		–		
6	–		–		–		
7	–		–		–		
8	–		–		–		
9	–		–		–		
10	–		–		–		
11	o.4		o.4		o.4		
12	–		–		o.4		
13	o.4		o.4		o.4		
14	o.4		o.4		o.4		
15	–		–		–		
16	–		–		–		
17	–		–		–		
18	–		–		–		
19	–		–		–		
20	–		–		–		
21	–		–		–		
22	–		–		–		
23	o.4		o.4		–		
24	–		–		–		
25	–		–		–		
26	–		–		–		
27	–		–		–		
28	o.4		o.4		–		
29	–		–		–		
30	–		–		–		
31	–		–		–		
32	–		–		–		
33	–		–		–		
34	–		–		–		
35	–		–		–		
36	–		–		–		
37	–		–		–		
38	–		–		–		
39	–		–		–		
40	–		–		–		

F.4.2 Create and delete management operations

The specifier of a manager role implementation that claims to support the create or delete management operations on the managed objects specified in this Recommendation | International Standard shall import a copy of the following tables and complete them.

F.4.2.1 Mean and variance monitor managed object class**Table F.2 – Create and delete support**

Index	Operation	Constraints and values	Status	Support	Additional information
1	Create support	–	o.4		
1.1	Create with reference object	–	c:o		
2	Delete support	–	o.4		

F.4.2.2 Mean and percentile monitor managed object class**Table F.3 – Create and delete support**

Index	Operation	Constraints and values	Status	Support	Additional information
1	Create support	–	o.4		
1.1	Create with reference object	–	c:o		
2	Delete support	–	o.4		

F.4.2.3 Mean and min max monitor managed object class**Table F.4 – Create and delete support**

Index	Operation	Constraints and values	Status	Support	Additional information
1	Create support	–	o.4		
1.1	Create with reference object	–	c:o		
2	Delete support	–	o.4		

F.4.2.4 Moving average mean monitor managed object class**Table F.5 – Create and delete support**

Index	Operation	Constraints and values	Status	Support	Additional information
1	Create support	–	o.4		
1.1	Create with reference object	–	c:o		
2	Delete support	–	o.4		

F.4.2.5 Algorithm indicating mean monitor managed object class**Table F.6 – Create and delete support**

Index	Operation	Constraints and values	Status	Support	Additional information
1	Create support	–	o.4		
1.1	Create with reference object	–	c:o		
2	Delete support	–	o.4		

F.4.2.6 Mean monitor managed object class**Table F.7 – Create and delete support**

Index	Operation	Constraints and values	Status	Support	Additional information
1	Create support	–	o.4		
1.1	Create with reference object	–	c:o		
2	Delete support	–	o.4		

F.4.2.7 Monitor metric managed object class**Table F.8 – Create and delete support**

Index	Operation	Constraints and values	Status	Support	Additional information
1	Create support	–	o.4		
1.1	Create with reference object	–	c:o		
2	Delete support	–	o.4		

Anexo G³⁾ Formulario de MOCS

Para clase de objeto gestionado "supervisor de la media y la varianza"

(Este anexo es parte integrante de la presente Recomendación | Norma Internacional)

G.1 Introduction

The purpose of this MOCS proforma is to provide a mechanism for a supplier of an implementation which claims to conform to a managed object class, to provide conformance information in a standard form.

G.1.1 Instructions for completing the MOCS proforma to produce a MOCS

The MOCS proforma contained in this annex is comprised of information in tabular form, in accordance with ITU-T Rec. X.724 | ISO/IEC 10165-6. The supplier of the implementation shall state which items are supported in the tables below and if necessary, provide additional information.

G.1.2 Symbols, abbreviations and terms

The MOCS proforma contained in this annex is comprised of information in tabular form, in accordance with CCITT Rec. X.291 | ISO/IEC 9646-2.

The following abbreviations are used throughout this proforma:

dmi-att	joint-iso-itu-t ms(9) smi(3) part2(2) attribute(7)
dmi-not	joint-iso-itu-t ms(9) smi(3) part2(2) notification(10)
dmi-pkg	joint-iso-itu-t ms(9) smi(3) part2(2) package(4)
moa-mo	joint-iso-itu-t ms(9) function(2) part11(11) managedObjectClass(3)
moa-att	joint-iso-itu-t ms(9) function(2) part11(11) attribute(7)
moa-pkg	joint-iso-itu-t ms(9) function(2) part11(11) package(4)
m3100-pkg	itu-t recommendation(0) m(13) gnm(3100) m3100InformationModel(0) package(4)

The notations used in the Status and Support columns are specified in E.1.3.

G.2 Statement of conformance to the managed object class

Table G.1 – Managed object class support

Index	Managed object class template label	Value of object identifier for class	Support of all mandatory features? (Y/N)	Is the actual class the same as the managed object class to which conformance is claimed? (Y/N)
1	meanAndVarianceMonitor	{moa-mo 3}		

If the answer to the actual class question in the managed object class support Table G.1 is no, then the supplier of the implementation shall fill in the actual class support Table G.2 below.

Table G.2 – Actual class support

Index	Actual managed object class template label	Value of object identifier for actual class	Additional information

³⁾ **Comunicado sobre derechos de autor del formulario de MOCS**

Los usuarios de esta Recomendación | Norma Internacional pueden reproducir libremente el formulario de MOCS de este anexo a fin de que pueda ser utilizado para los fines previstos, y pueden además publicar el MOCS cumplimentado. En la Rec. UIT-T X.724 | ISO/CEI 10165-6 se especifican las instrucciones para rellenar el formulario de MOCS.

G.3 Packages**Table G.3 – Package support**

Index	Package template label	Value of object identifier for package	Constraints and values	Status	Support	Additional information
1	topPackage	–	–	m		
2	packagesPackage	{dmi-pkg 16}	–	c1		
3	allomorphicPackage	{dmi-pkg 17}	–	c2		
4	scannerPackage	–	–	m		
5	availabilityStatusPackage	{dmi-pkg 22}	–	c3		
6	duration	{dmi-pkg 26}	–	o		
7	dailyScheduling	{dmi-pkg 25}	–	o		
8	weeklyScheduling	{dmi-pkg 29}	–	o		
9	externalScheduler	{dmi-pkg 27}	–	o		
10	periodSynchronizationPackage	{moa-pkg 10}	–	o		
11	createDeleteNotificationPackage	{m3100-pkg 10}	–	o		
12	attributeValueChangeNotificationPackage	{m3100 pkg 4}	–	o		
13	stateChangeNotificationPackage	{m3100-pkg 28}	–	o		
14	monitorMetricPackage	–	–	m		
15	counterDifferencePackage	{moa-pkg 2}	–	o		
16	counterOverflowPackage	{moa-pkg 3}	–	o		
17	gaugeDifferencePackage	{moa-pkg 8}	–	o		
18	derivedGaugeThresholdPackage	{moa-pkg 4}	–	o		
19	specificProblemsIndicationPackage	{moa-pkg 9}	–	o		
20	derivedGaugeTimestampPackage	{moa-pkg 5}	–	o		
21	meanMonitorPackage	–	–	m		
22	estimateOfMeanThresholdPackage	{moa-pkg 6}	–	o		
23	movingAverageMeanMonitorPackage	–	–	m		
24	meanAndVarianceMonitorPackage	–	–	m		
c1: if G.3/3a or G.3/5a or G.3/6a or G.3/7a or G.3/8a or G.3/9a or G.3/10a or G.3/11a or G.3/12a or G.3/13a or G.3/15a or G.3/16a or G.3/17a or G.3/18a or G.3/19a or G.3/20a or G.3/22a then m else –. c2: if G.1/1b then m else –. c3: if G.3/6a or G.3/7a or G.3/8a or G.3/9a then m else –.						

G.4 Attributes

Table G.4 – Attribute support

Index	Attribute template label	Value of object identifier for attribute	Constraints and values	Set by create		Get		Replace	
				Status	Support	Status	Support	Status	Support
1	objectClass	{dmi-att 65}	–	m		m		x	
2	nameBinding	{dmi-att 63}	–	o		m		c4	
3	packages	{dmi-att 66}	–	c5		c6		c7	
4	allomorphs	{dmi-att 50}	–	c8		c9		c4	
5	scannerId	{moa-att 25}	–	o		m		c4	
6	granularityPeriod	{moa-att 23}	–	m		m		m	
7	administrativeState	{dmi-att 31}	–	m		m		m	
8	operationalState	{dmi-att 35}	–	x		m		x	
9	availabilityStatus	{dmi-att 33}	off-duty required	c10		c11		c10	
10	periodSynchronizationTime	{moa-att 24}	–	c12		c12		c12	
11	startTime	{dmi-att 68}	–	c13		c13		c13	
12	stopTime	{dmi-att 69}	DMI default	c13		c13		c13	
13	intervalsOfDay	{dmi-att 57}	DMI default	c14		c14		c14	
14	weekMask	{dmi-att 71}	DMI default	c15		c15		c15	
15	schedulerName	{dmi-att 67}	–	c16		c17		c18	
16	observedObjectInstance	{moa-att 16}	–	m		m		x	
17	observedAttributeId	{moa-att 15}	–	m		m		x	
18	derivedGauge	{moa-att 2}	–	x		m		x	
19	previousScanCounterValue	{moa-att 1}	–	c19		c19		c19	
20	proceduralStatus	{dmi-att 36}	–	c20		c21		c20	
21	modulusValue	{moa-att 1}	–	c22		c22		c22	
22	previousScanGaugeValue	{moa-att 20}	–	c23		c23		c23	
23	severityIndicatingGaugeThreshold	{moa-att 18}	–	c24		c24		c24	
24	specificProblemIndicator	{moa-att 19}	–	c25		c25		c25	
25	derivedGaugeTimestamp	{moa-att 3}	–	c26		c27		c26	
26	estimateOfMean	{moa-att 7}	–	m		m		m	
27	movingTimePeriod	{moa-att 13}	–	m		m		m	
28	estimateOfMeanSeverityIndicatingGaugeThreshold	{moa-att 6}	–	c28		c28		c28	
29	secondMovingTimePeriod	{moa-att 17}	–	m		m		m	
30	estimateOfVariance	{moa-att 10}	–	m		m		m	

Table G.4 (continued)

Index	Add		Remove		Set to default		Additional information
	Status	Support	Status	Support	Status	Support	
1	—		—		x		
2	—		—		c4		
3	c7		c7		c7		
4	c4		c4		c4		
5	—		—		c4		
6	—		—		c4		
7	—		—		c4		
8	—		—		x		
9	c10		c10		c10		
10	—		—		c4		
11	—		—		c4		
12	—		—		c13		
13	c14		c14		c14		
14	c15		c15		c15		
15	—		—		c18		
16	—		—		x		
17	—		—		x		
18	—		—		x		
19	—		—		c4		
20	—		—		c20		
21	—		—		c4		
22	—		—		c4		
23	c24		c24		c4		
24	—		—		c4		
25	—		—		c26		
26	—		—		c4		
27	—		—		c4		
28	c28		c28		c4		
29	—		—		c4		
30	—		—		c4		
c4: if G.1/1b then x else —. c5: if G.3/2a then o else —. c6: if G.3/2a then m else —. c7: if G.3/2a then x else —. c8: if G.3/3a then o else —. c9: if G.3/5a then m else —.							

Table G.4 (concluded)

c10:	if G.3/5a then x else –.
c11:	if G.3/5a then m else –.
c12:	if G.3/10a then m else –.
c13:	if G.3/6a then m else –.
c14:	if G.3/7a then m else –.
c15:	if G.3/8a then m else –.
c16:	if G.3/9a then o else –.
c17:	if G.3/9a then m else –.
c18:	if G.3/9a then x else –.
c19:	if G.3/15a then m else –.
c20:	if G.3/15a or G.3/17a then x else –.
c21:	if G.3/15a or G.3/17a then m else –.
c22:	if G.3/16a then m else –.
c23:	if G.3/17a then m else –.
c24:	if G.3/18a then m else –.
c25:	if G.3/19a then m else –.
c26:	if G.3/20a then x else –.
c27:	if G.3/20a then m else –.
c28:	if G.3/22a then m else –.

G.5 Notifications

Table G.5 – Notification support

Index	Notification type template label	Value of object identifier for notification type	Constraints and values	Status	Support		Additional information
					Con- firmed	Non- con- firmed	
1	objectCreation	{dmi-not 6}	–	c29			
2	objectDeletion	{dmi-not 7}	–	c29			
3	attributeValueChange	{dmi-not 1}	–	c30			
4	stateChange	{dmi-not 14}	–	c31			
5	qualityofServiceAlarm	{dmi-not 11}	–	c32			
c29: if G.3/11a then m else –. c30: if G.3/12a then m else –. c31: if G.3/13a then m else –. c32: if G.3/18a or G.3/22a then m else –.							

Table G.5 (continued)

Index	Subindex	Notification field name label	Value of object identifier of attribute type associated with field	Constraints and values	Status	Support	Additional information
1	1.1	sourceIndicator	{dmi-att 26}	0 to 2	o		
	1.2	attributeList	{dmi-att 9}	–	o		
	1.3	notificationIdentifier	{dmi-att 16}	–	c33		
	1.4	correlatedNotifications	{dmi-att 12}	–	o		
	1.4.1	correlatedNotifications		–	c:m		
	1.4.2	sourceObjectInst		–	c:o		
	1.4.2.1	distinguishedName		–	c:o.1		
	1.4.2.2	nonSpecificForm		–	c:o.1		
	1.4.2.3	localDistinguishedName		–	c:o.1		
	1.5	additionalText	{dmi-att 7}	–	o		
	1.6	additionalInformation	{dmi-att 6}	–	o		
2	2.1	sourceIndicator	{dmi-att 26}	0 to 2	o		
	2.2	attributeList	{dmi-att 9}	–	o		
	2.3	notificationIdentifier	{dmi-att 16}	–	c34		
	2.4	correlatedNotifications	{dmi-att 12}	–	o		
	2.4.1	correlatedNotifications		–	c:m		
	2.4.2	sourceObjectInst		–	c:o		
	2.4.2.1	distinguishedName		–	c:o.2		
	2.4.2.2	nonSpecificForm		–	c:o.2		
	2.4.2.3	localDistinguishedName		–	c:o.2		
	2.5	additionalText	{dmi-att 7}	–	o		
	2.6	additionalInformation	{dmi-att 6}	–	o		
3	3.1	sourceIndicator	{dmi-att 26}	0 to 2	o		
	3.2	attributeIdentifierList	{dmi-att 8}	–	o		
	3.3	attributeValueChangeDefinition	{dmi-att 10}	–	m		
	3.3.1	attributeId		–	m		
	3.3.2	oldAttributeValue		–	o		
	3.3.3	newAttributeValue		–	m		
	3.4	notificationIdentifier	{dmi-att 16}	–	c35		
	3.5	correlatedNotifications	{dmi-att 12}	–	o		
	3.5.1	correlatedNotifications		–	c:m		
	3.5.2	sourceObjectInst		–	c:o		
	3.5.2.1	distinguishedName		–	c:o.3		
	3.5.2.2	nonSpecificForm		–	c:o.3		
	3.5.2.3	localDistinguishedName		–	c:o.3		
	3.6	additionalText	{dmi-att 7}	–	o		
	3.7	additionalInformation	{dmi-att 6}	–	o		
c33: if G.5/1.4a then m else o. c34: if G.5/2.4a then m else o. c35: if G.5/3.5a then m else o.							

Table G.5 (continued)

Index	Subindex	Notification field name label	Value of object identifier of attribute type associated with field	Constraints and values	Status	Support	Additional information
4	4.1	sourceIndicator	{ dmi-att 26 }	0 to 2	o		
	4.2	attribute identifier list	{ dmi-att 8 }	–	o		
	4.3	stateChangeDefinition	{ dmi-att 28 }	–	m		
	4.3.1	attributeId		–	m		
	4.3.2	oldAttributeValue		–	o		
	4.3.3	newAttributeValue		–	m		
	4.4	notificationIdentifier	{ dmi-att 16 }	–	c36		
	4.5	correlatedNotifications	{ dmi-att 12 }	–	o		
	4.5.1	correlatedNotifications		–	c:m		
	4.5.2	sourceObjectInst		–	c:o		
	4.5.2.1	distinguishedName		–	c:o.4		
	4.5.2.2	nonSpecificForm		–	c:o.4		
	4.5.2.3	localDistinguishedName		–	c:o.4		
	4.6	additionalText	{ dmi-att 7 }	–	o		
	4.7	additionalInformation	{ dmi-att 6 }	–	o		
5	5.1	probableCause	{ dmi-att 18 }	threshold Crossed	m		
	5.1.1	globalValue	–	–	o.41		
	5.1.2	localValue	–	–	o.41		
	5.2	specificProblems	{ dmi-att 27 }	–	c21		
	5.2.1	global	–	–	c:o.42		
	5.2.2	local	–	–	c:o.42		
	5.3	perceivedSeverity	{ dmi-att 17 }	defined on a per object basis	m		
	5.4	backedupStatus	{ dmi-att 11 }	–	o		
	5.5	backupObject	{ dmi-att 40 }	for backUp relationships	o		
	5.5.1	distinguishedName	–	–	c:o.43		
	5.5.2	nonSpecificForm	–	–	c:o.43		
	5.5.3	localDistinguishedName	–	–	c:o.43		
	5.6	trendIndication	{ dmi-att 30 }	–	o		
	5.7	thresholdInfo	{ dmi-att 29 }	–	m		
	5.7.1	triggeredThreshold	–	–	m		
	5.7.2	observedValue	–	–	m		
	5.7.2.1	integer	–	–	o.44		
	5.7.2.2	real	–	–	o.44		
	5.7.3	thresholdLevel	–	–	o		
	5.7.3.1	up	–	–	c:o.45		
	5.7.3.1.1	high	–	–	c:m		
	5.7.3.1.1.1	integer	–	–	c:o.46		
	5.7.3.1.1.2	real	–	–	c:o.46		
	5.7.3.1.2	low	–	–	c:o		
	5.7.3.1.2.1	integer	–	–	c:o.47		
	5.7.3.1.2.2	real	–	–	c:o.47		
c36: if G.5/4.5a then m else o.							

Table G.5 (concluded)

Index	Subindex	Notification field name label	Value of object identifier of attribute type associated with field	Constraints and values	Status	Support	Additional information
	5.7.3.2	down	–	–	c:o.45		
	5.7.3.2.1	high	–	–	c:m		
	5.7.3.2.1.1	integer	–	–	c:o.48		
	5.7.3.2.1.2	real	–	–	c:o.48		
	5.7.3.2.2	low	–	–	c:m		
	5.7.3.2.2.1	integer	–	–	c:o.49		
	5.7.3.2.2.2	real	–	–	c:o.49		
	5.7.4	armTime	–	–	c:o		
	5.8	notificationIdentifier	{dmi-att 16}	–	c37		
	5.9	correlatedNotifications	{dmi-att 12}	–	o		
	5.9.1	correlatedNotificationIds	–	–	c:m		
	5.9.2	sourceObjectInst	–	–	c:o		
	5.9.2.1	distinguishedName	–	–	c:o.55		
	5.9.2.2	nonSpecificForm	–	–	c:o.55		
	5.9.2.3	localDistinguishedName	–	–	c:o.55		
	5.10	stateChangeDefinition	{dmi-att 28}	–	m		
	5.10.1	attributeId	–	–	c:m		
	5.10.2	oldAttributeValue	–	–	c:o		
	5.10.3	newAttributeValue	–	–	c:m		
	5.11	monitoredAttributes	{dmi-att 15}	observed Object Instance, observed AttributeId, other attributes which are metrics	m		
	5.12	proposedRepairActions	{dmi-att 19}	–	o		
	5.12.1	global	–	–	c:o.50		
	5.12.2	local	–	–	c:o.50		
	5.13	additionalText	{dmi-att 7}	–	o		
	5.14	additionalInformation	{dmi-att 6}	required for some objects	o		
c37: if G.5/5.9a then m else o.							

Anexo H⁴⁾ Formulario de MOCS

Para clase de objeto gestionado "supervisor de la media y los percentiles"

(Este anexo es parte integrante de la presente Recomendación | Norma Internacional)

H.1 Introduction

The purpose of this MOCS proforma is to provide a mechanism for a supplier of an implementation which claims to conform to a managed object class, to provide conformance information in a standard form.

H.1.1 Instructions for completing the MOCS proforma to produce a MOCS

The MOCS proforma contained in this annex is comprised of information in tabular form, in accordance with ITU-T Rec. X.724 | ISO/IEC 10165-6. The supplier of the implementation shall state which items are supported in the tables below and if necessary, provide additional information.

H.1.2 Symbols, abbreviations and terms

The MOCS proforma contained in this annex is comprised of information in tabular form, in accordance with CCITT Rec. X.291 | ISO/IEC 9646-2.

The following abbreviations are used throughout this proforma:

dmi-att	joint-iso-itu-t ms(9) smi(3) part2(2) attribute(7)
dmi-not	joint-iso-itu-t ms(9) smi(3) part2(2) notification(10)
dmi-pkg	joint-iso-itu-t ms(9) smi(3) part2(2) package(4)
moa-mo	joint-iso-itu-t ms(9) function(2) part11(11) managedObjectClass(3)
moa-att	joint-iso-itu-t ms(9) function(2) part11(11) attribute(7)
moa-pkg	joint-iso-itu-t ms(9) function(2) part11(11) package(4)
m3100-pkg	itu-t recommendation(0) m(13) gnm(3100) m3100InformationModel(0) package(4)

The notations used in the Status and Support columns are specified in E.1.3.

H.2 Statement of conformance to the managed object class

Table H.1 – Managed object class support

Index	Managed object class template label	Value of object identifier for class	Support of all mandatory features? (Y/N)	Is the actual class the same as the managed object class to which conformance is claimed? (Y/N)
1	meanAndPercentileMonitor	{moa-mo 2}		

If the answer to the actual class question in the managed object class support Table H.1 is no, then the supplier of the implementation shall fill in the actual class support Table H.2 below.

Table H.2 – Actual class support

Index	Actual managed object class template label	Value of object identifier for actual class	Additional information

⁴⁾ **Comunicado sobre derechos de autor del formulario de MOCS**

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H.3 Packages**Table H.3 – Package support**

Index	Package template label	Value of object identifier for package	Constraints and values	Status	Support	Additional Information
1	topPackage	–	–	m		
2	packagesPackage	{dmi-pkg 16}	–	c1		
3	allomorphicPackage	{dmi-pkg 17}	–	c2		
4	scannerPackage	–	–	m		
5	availabilityStatusPackage	{dmi-pkg 22}	–	c3		
6	duration	{dmi-pkg 26}	–	o		
7	dailyScheduling	{dmi-pkg 25}	–	o		
8	weeklyScheduling	{dmi-pkg 29}	–	o		
9	externalScheduler	{dmi-pkg 27}	–	o		
10	periodSynchronizationPackage	{moa-pkg 10}	–	o		
11	createDeleteNotificationPackage	{m3100-pkg 10}	–	o		
12	attributeValueChangeNotificationPackage	{m3100 pkg 4}	–	o		
13	stateChangeNotificationPackage	{m3100-pkg 28}	–	o		
14	monitorMetricPackage	–	–	m		
15	counterDifferencePackage	{moa-pkg 2}	–	o		
16	counterOverflowPackage	{moa-pkg 3}	–	o		
17	gaugeDifferencePackage	{moa-pkg 8}	–	o		
18	derivedGaugeThresholdPackage	{moa-pkg 4}	–	o		
19	specificProblemsIndicationPackage	{moa-pkg 9}	–	o		
20	derivedGaugeTimestampPackage	{moa-pkg 5}	–	o		
21	meanMonitorPackage	–	–	m		
22	estimateOfMeanThresholdPackage	{moa-pkg 6}	–	o		
23	movingAverageMeanMonitorPackage	–	–	m		
24	meanAndPercentileMonitorPackage	–	–	m		
25	configurablePercentilePackage	{moa-pkg 1}	–	o		
c1: if H.3/3a or H.3/5a or H.3/6a or H.3/7a or H.3/8a or H.3/9a or H.3/10a or H.3/11a or H.3/12a or H.3/13a or H.3/15a or H.3/16a or H.3/17a or H.3/18a or H.3/19a or H.3/20a or H.3/22a or H.3/25a then m else –. c2: if H.1/1b then m else –. c3: if H.3/6a or H.3/7a or H.3/8a or H.3/9a then m else –.						

H.4 Attributes

Table H.4 – Attribute support

Index	Attribute template label	Value of object identifier for attribute	Constraints and values	Set by create		Get		Replace	
				Status	Support	Status	Support	Status	Support
1	objectClass	{dmi-att 65}	–	m		m		x	
2	nameBinding	{dmi-att 63}	–	o		m		c4	
3	packages	{dmi-att 66}	–	c5		c6		c7	
4	allomorphs	{dmi-att 50}	–	c8		c9		c4	
5	scannerId	{moa-att 25}	–	o		m		c4	
6	granularityPeriod	{moa-att 23}	–	m		m		m	
7	administrativeState	{dmi-att 31}	–	m		m		m	
8	operationalState	{dmi-att 35}	–	x		m		x	
9	availabilityStatus	{dmi-att 33}	off-duty required	c10		c11		c10	
10	periodSynchronizationTime	{moa-att 24}	–	c12		c12		c12	
11	startTime	{dmi-att 68}	–	c13		c13		c13	
12	stopTime	{dmi-att 69}	DMI default	c13		c13		c13	
13	intervalsOfDay	{dmi-att 57}	DMI default	c14		c14		c14	
14	weekMask	{dmi-att 71}	DMI default	c15		c15		c15	
15	schedulerName	{dmi-att 67}	–	c16		c17		c18	
16	observedObjectInstance	{moa-att 16}	–	m		m		x	
17	observedAttributeId	{moa-att 15}	–	m		m		x	
18	derivedGauge	{moa-att 2}	–	x		m		x	
19	previousScanCounterValue	{moa-att 1}	–	c19		c19		c19	
20	proceduralStatus	{dmi-att 36}	–	c20		c21		c20	
21	modulusValue	{moa-att 1}	–	c22		c22		c22	
22	previousScanGaugeValue	{moa-att 20}	–	c23		c23		c23	
23	severityIndicatingGaugeThreshold	{moa-att 18}	–	c24		c24		c24	
24	specificProblemIndicator	{moa-att 19}	–	c25		c25		c25	
25	derivedGaugeTimestamp	{moa-att 3}	–	c26		c27		c26	
26	estimateOfMean	{moa-att 7}	–	m		m		m	
27	movingTimePeriod	{moa-att 13}	–	m		m		m	
28	estimateOfMeanSeverityIndicatingGaugeThreshold	{moa-att 6}	–	c28		c28		c28	
29	secondMovingTimePeriod	{moa-att 17}	–	m		m		m	
30	estimateOfLargestInReplication	{moa-att 21}	–	m		m		m	
31	estimateOfSmallestInReplication	{moa-att 22}	–	m		m		m	
32	estimateOfMedian	{moa-att 7}	–	m		m		m	
33	estimateOf100-PCTPercentile	{moa-att 11}	–	m		m		m	
34	estimateOfPCTPercentile	{moa-att 8}	–	m		m		m	
35	numberOfReplications	{moa-att 14}	–	m		m		m	
36	configurablePCT	{moa-att 0}	–	c29		c29		c29	

Table H.4 (continued)

Index	Add		Remove		Set to default		Additional information
	Status	Support	Status	Support	Status	Support	
1	—		—		x		
2	—		—		c4		
3	c7		c7		c7		
4	c4		c4		c4		
5	—		—		c4		
6	—		—		c4		
7	—		—		c4		
8	—		—		x		
9	c10		c10		c10		
10	—		—		c4		
11	—		—		c4		
12	—		—		c13		
13	c14		c14		c14		
14	c15		c15		c15		
15	—		—		c18		
16	—		—		x		
17	—		—		x		
18	—		—		x		
19	—		—		c4		
20	—		—		c20		
21	—		—		c4		
22	—		—		c4		
23	c24		c24		c4		
24	—		—		c4		
25	—		—		c26		
26	—		—		c4		
27	—		—		c4		
28	c28		c28		c4		
29	—		—		c4		
30	—		—		c4		
31	—		—		c4		
32	—		—		c4		
33	—		—		c4		
34	—		—		c4		
35	—		—		c4		
36	—		—		c4		
c4: if H.1/1b then x else —. c5: if H.3/2a then o else —. c6: if H.3/2a then m else —. c7: if H.3/2a then x else —.							

Table H.4 (concluded)

c8:	if H.3/3a then o else –.
c9:	if H.3/5a then m else –.
c10:	if H.3/5a then x else –.
c11:	if H.3/5a then m else –.
c12:	if H.3/10a then m else –.
c13:	if H.3/6a then m else –.
c14:	if H.3/7a then m else –.
c15:	if H.3/8a then m else –.
c16:	if H.3/9a then o else –.
c17:	if H.3/9a then m else –.
c18:	if H.3/9a then x else –.
c19:	if H.3/15a then m else –.
c20:	if H.3/15a or H.3/17a then x else –.
c21:	if H.3/15a or H.3/17a then m else –.
c22:	if H.3/16a then m else –.
c23:	if H.3/17a then m else –.
c24:	if H.3/18a then m else –.
c25:	if H.3/19a then m else –.
c26:	if H.3/20a then x else –.
c27:	if H.3/20a then m else –.
c28:	if H.3/22a then m else –.
c29:	if H.3/25a then m else –.

H.5 Notifications

Table H.5 – Notification support

Index	Notification type template label	Value of object identifier for notification type	Constraints and values	Status	Support		Additional information
					Con- firmed	Non- con- firmed	
1	objectCreation	{dmi-not 6}	–	c30			
2	objectDeletion	{dmi-not 7}	–	c30			
3	attributeValueChange	{dmi-not 1}	–	c31			
4	stateChange	{dmi-not 14}	–	c32			
5	qualityofServiceAlarm	{dmi-not 11}	–	c33			
c30: if H.3/11a then m else –. c31: if H.3/12a then m else –. c32: if H.3/13a then m else –. c33: if H.3/18a or H.8/22a then m else –.							

The detailed requirements for each of the above notifications for this managed object class are as specified in Table G.5. For this reason the table is not repeated here. The supplier of the implementation needs to complete a copy of Table G.5 for this managed object class if the support is different.

Anexo I⁵⁾

Formulario de MOCS

Para clase de objeto gestionado "supervisor de la media y los valores mínimo y máximo"

(Este anexo es parte integrante de la presente Recomendación | Norma Internacional)

I.1 Introduction

The purpose of this MOCS proforma is to provide a mechanism for a supplier of an implementation which claims to conform to a managed object class, to provide conformance information in a standard form.

I.2 Instructions for completing the MOCS proforma to produce a MOCS

The MOCS proforma contained in this annex is comprised of information in tabular form, in accordance with ITU-T Rec. X.724 | ISO/IEC 10165-6. The supplier of the implementation shall state which items are supported in the tables below and if necessary, provide additional information.

I.3 Symbols, abbreviations and terms

The MOCS proforma contained in this annex is comprised of information in tabular form, in accordance with CCITT Rec. X.291 | ISO/IEC 9646-2.

The following abbreviations are used throughout this proforma:

dmi-att	joint-iso-itu-t ms(9) smi(3) part2(2) attribute(7)
dmi-not	joint-iso-itu-t ms(9) smi(3) part2(2) notification(10)
dmi-pkg	joint-iso-itu-t ms(9) smi(3) part2(2) package(4)
moa-mo	joint-iso-itu-t ms(9) function(2) part11(11) managedObjectClass(3)
moa-att	joint-iso-itu-t ms(9) function(2) part11(11) attribute(7)
moa-pkg	joint-iso-itu-t ms(9) function(2) part11(11) package(4)
m3100-pkg	itu-t recommendation(0) m(13) gnm(3100) m3100InformationModel(0) package(4)

The notations used in the Status and Support columns are specified in E.1.3.

I.4 Mean and min max monitor managed object class

I.4.1 Statement of conformance to the managed object class

Table I.1 – Managed object class support

Index	Managed object class template label	Value of object identifier for class	Support of all mandatory features? (Y/N)	Is the actual class the same as the managed object class to which conformance is claimed? (Y/N)
1	meanAndMinMaxMonitor	{moa-mo 1}		

⁵⁾ **Comunicado sobre derechos de autor del formulario de MOCS**

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If the answer to the actual class question in the managed object class support Table I.1 is no, then the supplier of the implementation shall fill in the actual class support Table I.2 below.

Table I.2 – Actual class support

Index	Actual managed object class template label	Value of object identifier for actual class	Additional information

I.4.2 Packages

Table I.3 – Package support

Index	Package template label	Value of object identifier for package	Constraints and values	Status	Support	Additional Information
1	topPackage	–	–	m		
2	packagesPackage	{dmi-pkg 16}	–	c1		
3	allomorphicPackage	{dmi-pkg 17}	–	c2		
4	scannerPackage	–	–	m		
5	availabilityStatusPackage	{dmi-pkg 22}	–	c3		
6	duration	{dmi-pkg 26}	–	o		
7	dailyScheduling	{dmi-pkg 25}	–	o		
8	weeklyScheduling	{dmi-pkg 29}	–	o		
9	externalScheduler	{dmi-pkg 27}	–	o		
10	periodSynchronizationPackage	{moa-pkg 10}	–	o		
11	createDeleteNotificationPackage	{m3100-pkg 10}	–	o		
12	attributeValueChangeNotificationPackage	{m3100 pkg 4}	–	o		
13	stateChangeNotificationPackage	{m3100-pkg 28}	–	o		
14	monitorMetricPackage	–	–	m		
15	counterDifferencePackage	{moa-pkg 2}	–	o		
16	counterOverflowPackage	{moa-pkg 3}	–	o		
17	gaugeDifferencePackage	{moa-pkg 8}	–	o		
18	derivedGaugeThresholdPackage	{moa-pkg 4}	–	o		
19	specificProblemsIndicationPackage	{moa-pkg 9}	–	o		
20	derivedGaugeTimestampPackage	{moa-pkg 5}	–	o		
21	meanMonitorPackage	–	–	m		
22	estimateOfMeanThresholdPackage	{moa-pkg 6}	–	o		
23	movingAverageMeanMonitorPackage	–	–	m		
24	meanAndMinMaxMonitorPackage	–	–	m		
c1: if I.3/3a or I.3/5a or I.3/6a or I.3/7a or I.3/8a or I.3/9a or I.3/10a or I.3/11a or I.3/12a or I.3/13a or I.3/15a or I.3/16a or I.3/17a or I.3/18a or I.3/19a or I.3/20a or I.3/22a then m else –. c2: if I.1/1b then m else –. c3: if I.3/6a or I.3/7a or I.3/8a or I.3/9a then m else –.						

I.4.3 Attributes

Table I.4 – Attribute support

Index	Attribute template label	Value of object identifier for attribute	Constraints and values	Set by create		Get		Replace	
				Status	Support	Status	Support	Status	Support
1	objectClass	{dmi-att 65}	–	m		m		x	
2	nameBinding	{dmi-att 63}	–	o		m		c4	
3	packages	{dmi-att 66}	–	c5		c6		c7	
4	allomorphs	{dmi-att 50}	–	c8		c9		c4	
5	scannerId	{moa-att 25}	–	o		m		c4	
6	granularityPeriod	{moa-att 23}	–	m		m		m	
7	administrativeState	{dmi-att 31}	–	m		m		m	
8	operationalState	{dmi-att 35}	–	x		m		x	
9	availabilityStatus	{dmi-att 33}	off-duty required	c10		c11		c10	
10	periodSynchronizationTime	{moa-att 24}	–	c12		c12		c12	
11	startTime	{dmi-att 68}	–	c13		c13		c13	
12	stopTime	{dmi-att 69}	DMI default	c13		c13		c13	
13	intervalsOfDay	{dmi-att 57}	DMI default	c14		c14		c14	
14	weekMask	{dmi-att 71}	DMI default	c15		c15		c15	
15	schedulerName	{dmi-att 67}	–	c16		c17		c18	
16	observedObjectInstance	{moa-att 16}	–	m		m		x	
17	observedAttributeId	{moa-att 15}	–	m		m		x	
18	derivedGauge	{moa-att 2}	–	x		m		x	
19	previousScanCounterValue	{moa-att 1}	–	c19		c19		c19	
20	proceduralStatus	{dmi-att 36}	–	c20		c21		c20	
21	modulusValue	{moa-att 1}	–	c22		c22		c22	
22	previousScanGaugeValue	{moa-att 20}	–	c23		c23		c23	
23	severityIndicatingGaugeThreshold	{moa-att 18}	–	c24		c24		c24	
24	specificProblemIndicator	{moa-att 19}	–	c25		c25		c25	
25	derivedGaugeTimestamp	{moa-att 3}	–	c26		c27		c26	
26	estimateOfMean	{moa-att 7}	–	m		m		m	
27	movingTimePeriod	{moa-att 13}	–	m		m		m	
28	estimateOfMeanSeverityIndicatingGaugeThreshold	{moa-att 6}	–	c28		c28		c28	
29	estimateOfLargest	{moa-att 4}	–	m		m		m	
30	estimateOfSmallest	{moa-att 9}	–	m		m		m	

Table I.4 (continued)

Index	Add		Remove		Set to default		Additional information
	Status	Support	Status	Support	Status	Support	
1	–		–		x		
2	–		–		c4		
3	c7		c7		c7		
4	c4		c4		c4		
5	–		–		c4		
6	–		–		c4		
7	–		–		c4		
8	–		–		x		
9	c10		c10		c10		
10	–		–		c4		
11	–		–		c4		
12	–		–		c13		
13	c14		c14		c14		
14	c15		c15		c15		
15	–		–		c18		
16	–		–		x		
17	–		–		x		
18	–		–		x		
19	–		–		c4		
20	–		–		c20		
21	–		–		c4		
22	–		–		c4		
23	c24		c24		c4		
24	–		–		c4		
25	–		–		c26		
26	–		–		c4		
27	–		–		c4		
28	c28		c28		c4		
29	–		–		c4		
30	–		–		c4		
c4: if I.1/1b then x else –. c5: if I.3/2a then o else –. c6: if I.3/2a then m else –. c7: if I.3/2a then x else –. c8: if I.3/3a then o else –. c9: if I.3/5a then m else –. c10: if I.3/5a then x else –.							

Table I.4 (concluded)

c11: if I.3/5a then m else –.
 c12: if I.3/10a then m else –.
 c13: if I.3/6a then m else –.
 c14: if I.3/7a then m else –.
 c15: if I.3/8a then m else –.
 c16: if I.3/9a then o else –.
 c17: if I.3/9a then m else –.
 c18: if I.3/9a then x else –.
 c19: if I.3/15a then m else –.
 c20: if I.3/15a or I.3/17a then x else –.
 c21: if I.3/15a or I.3/17a then m else –.
 c22: if I.3/16a then m else –.
 c23: if I.3/17a then m else –.
 c24: if I.3/18a then m else –.
 c25: if I.3/19a then m else –.
 c26: if I.3/20a then x else –.
 c27: if I.3/20a then m else –.
 c28: if I.3/22a then m else –.

I.4.4 Notifications**Table I.5 – Notification support**

Index	Notification type template label	Value of object identifier for notification type	Constraints and values	Status	Support		Additional information
					Con- firmed	Non- con- firmed	
1	objectCreation	{dmi-not 6}	–	c29			
2	objectDeletion	{dmi-not 7}	–	c29			
3	attributeValueChange	{dmi-not 1}	–	c30			
4	stateChange	{dmi-not 14}	–	c31			
5	qualityofServiceAlarm	{dmi-not 11}	–	c32			
c29: if I.3/11a then m else –. c30: if I.3/12a then m else –. c31: if I.3/13a then m else –. c32: if I.3/18a or I.12/22a then m else –.							

The detailed requirements for each of the above notifications for this managed object class are as specified in Table G.5. For this reason the table is not repeated here. The supplier of the implementation needs to complete a copy of Table G.5 for this managed object class if the support is different.

Anexo J⁶⁾ Formulario de MOCS

Para clase de objeto gestionado "supervisor de medias de media móvil"

(Este anexo es parte integrante de la presente Recomendación | Norma Internacional)

J.1 Introduction

The purpose of this MOCS proforma is to provide a mechanism for a supplier of an implementation which claims to conform to a managed object class, to provide conformance information in a standard form.

J.2 Instructions for completing the MOCS proforma to produce a MOCS

The MOCS proforma contained in this annex is comprised of information in tabular form, in accordance with ITU-T Rec. X.724 | ISO/IEC 10165-6. The supplier of the implementation shall state which items are supported in the tables below and if necessary, provide additional information.

J.3 Symbols, abbreviations and terms

The MOCS proforma contained in this annex is comprised of information in tabular form, in accordance with CCITT Rec. X.291 | ISO/IEC 9646-2.

The following abbreviations are used throughout this proforma:

dmi-att	joint-iso-itu-t ms(9) smi(3) part2(2) attribute(7)
dmi-not	joint-iso-itu-t ms(9) smi(3) part2(2) notification(10)
dmi-pkg	joint-iso-itu-t ms(9) smi(3) part2(2) package(4)
moa-mo	joint-iso-itu-t ms(9) function(2) part11(11) managedObjectClass(3)
moa-att	joint-iso-itu-t ms(9) function(2) part11(11) attribute(7)
moa-pkg	joint-iso-itu-t ms(9) function(2) part11(11) package(4)
m3100-pkg	itu-t recommendation(0) m(13) gnm(3100) m3100InformationModel(0) package(4)

The notations used in the Status and Support columns are specified in E.1.3.

J.4 Moving average mean monitor managed object class

J.4.1 Statement of conformance to the managed object class

Table J.1 – Managed object class support

Index	Managed object class template label	Value of object identifier for class	Support of all mandatory features? (Y/N)	Is the actual class the same as the managed object class to which conformance is claimed? (Y/N)
1	movingAverageMeanMonitor	{moa-mo 6}		

⁶⁾ **Comunicado sobre derechos de autor del formulario de MOCS**

Los usuarios de esta Recomendación | Norma Internacional pueden reproducir libremente el formulario de MOCS de este anexo a fin de que pueda ser utilizado para los fines previstos, y pueden además publicar el MOCS cumplimentado. En la Rec. UIT-T X.724 | ISO/CEI 10165-6 se especifican las instrucciones para rellenar el formulario de MOCS.

If the answer to the actual class question in the managed object class support Table J.1 is no, then the supplier of the implementation shall fill in the actual class support Table J.2 below.

Table J.2 – Actual class support

Index	Actual managed object class template label	Value of object identifier for actual class	Additional information

J.4.2 Packages**Table J.3 – Package support**

Index	Package template label	Value of object identifier for package	Constraints and values	Status	Support	Additional Information
1	topPackage	–	–	m		
2	packagesPackage	{dmi-pkg 16}	–	c1		
3	allomorphicPackage	{dmi-pkg 17}	–	c2		
4	scannerPackage	–	–	m		
5	availabilityStatusPackage	{dmi-pkg 22}	–	c3		
6	duration	{dmi-pkg 26}	–	o		
7	dailyScheduling	{dmi-pkg 25}	–	o		
8	weeklyScheduling	{dmi-pkg 29}	–	o		
9	externalScheduler	{dmi-pkg 27}	–	o		
10	periodSynchronizationPackage	{moa-pkg 10}	–	o		
11	createDeleteNotificationPackage	{m3100-pkg 10}	–	o		
12	attributeValueChangeNotificationPackage	{m3100 pkg 4}	–	o		
13	stateChangeNotificationPackage	{m3100-pkg 28}	–	o		
14	monitorMetricPackage	–	–	m		
15	counterDifferencePackage	{moa-pkg 2}	–	o		
16	counterOverflowPackage	{moa-pkg 3}	–	o		
17	gaugeDifferencePackage	{moa-pkg 8}	–	o		
18	derivedGaugeThresholdPackage	{moa-pkg 4}	–	o		
19	specificProblemsIndicationPackage	{moa-pkg 9}	–	o		
20	derivedGaugeTimestampPackage	{moa-pkg 5}	–	o		
21	meanMonitorPackage	–	–	m		
22	estimateOfMeanThresholdPackage	{moa-pkg 6}	–	o		
23	movingAverageMeanMonitorPackage	–	–	m		
c1: if J.3/3a or J.3/5a or J.3/6a or J.3/7a or J.3/8a or J.3/9a or J.3/10a or J.3/11a or J.3/12a or J.3/13a or J.3/15a or J.3/16a or J.3/17a or J.3/18a or J.3/19a or J.3/20a or J.3/22a then m else –. c2: if J.1/1b then m else –. c3: if J.3/6a or J.3/7a or J.3/8a or J.3/9a then m else –.						

J.4.3 Attributes

Table J.4 – Attribute support

Index	Attribute template label	Value of object identifier for attribute	Constraints and values	Set by create		Get		Replace	
				Status	Support	Status	Support	Status	Support
1	objectClass	{dmi-att 65}	–	m		m		x	
2	nameBinding	{dmi-att 63}	–	o		m		c4	
3	packages	{dmi-att 66}	–	c5		c6		c7	
4	allomorphs	{dmi-att 50}	–	c8		c9		c4	
5	scannerId	{moa-att 25}	–	o		m		c4	
6	granularityPeriod	{moa-att 23}	–	m		m		m	
7	administrativeState	{dmi-att 31}	–	m		m		m	
8	operationalState	{dmi-att 35}	–	x		m		x	
9	availabilityStatus	{dmi-att 33}	off-duty required	c10		c11		c10	
10	periodSynchronizationTime	{moa-att 24}	–	c12		c12		c12	
11	startTime	{dmi-att 68}	–	c13		c13		c13	
12	stopTime	{dmi-att 69}	DMI default	c13		c13		c13	
13	intervalsOfDay	{dmi-att 57}	DMI default	c14		c14		c14	
14	weekMask	{dmi-att 71}	DMI default	c15		c15		c15	
15	schedulerName	{dmi-att 67}	–	c16		c17		c18	
16	observedObjectInstance	{moa-att 16}	–	m		m		x	
17	observedAttributeId	{moa-att 15}	–	m		m		x	
18	derivedGauge	{moa-att 2}	–	x		m		x	
19	previousScanCounterValue	{moa-att 1}	–	c19		c19		c19	
20	proceduralStatus	{dmi-att 36}	–	c20		c21		c20	
21	modulusValue	{moa-att 1}	–	c22		c22		c22	
22	previousScanGaugeValue	{moa-att 20}	–	c23		c23		c23	
23	severityIndicatingGaugeThreshold	{moa-att 18}	–	c24		c24		c24	
24	specificProblemIndicator	{moa-att 19}	–	c25		c25		c25	
25	derivedGaugeTimestamp	{moa-att 3}	–	c26		c27		c26	
26	estimateOfMean	{moa-att 7}	–	m		m		m	
27	movingTimePeriod	{moa-att 13}	–	m		m		m	
28	estimateOfMeanSeverityIndicatingGaugeThreshold	{moa-att 6}	–	c28		c28		c28	

Table J.4 (continued)

Index	Add		Remove		Set to default		Additional information
	Status	Support	Status	Support	Status	Support	
1	—		—		x		
2	—		—		c4		
3	c7		c7		c7		
4	c4		c4		c4		
5	—		—		c4		
6	—		—		c4		
7	—		—		c4		
8	—		—		x		
9	c10		c10		c10		
10	—		—		c4		
11	—		—		c4		
12	—		—		c13		
13	c14		c14		c14		
14	c15		c15		c15		
15	—		—		c18		
16	—		—		x		
17	—		—		x		
18	—		—		x		
19	—		—		c4		
20	—		—		c20		
21	—		—		c4		
22	—		—		c4		
23	c24		c24		c4		
24	—		—		c4		
25	—		—		c26		
26	—		—		c4		
27	—		—		c4		
28	c28		c28		c4		
c4: if J.1/1b then x else —. c5: if J.3/2a then o else —. c6: if J.3/2a then m else —. c7: if J.3/2a then x else —. c8: if J.3/3a then o else —. c9: if J.3/5a then m else —. c10: if J.3/5a then x else —. c11: if J.3/5a then m else —. c12: if J.3/10a then m else —. c13: if J.3/6a then m else —.							

Table J.4 (concluded)

c14:	if J.3/7a then m else –.
c15:	if J.3/8a then m else –.
c16:	if J.3/9a then o else –.
c17:	if J.3/9a then m else –.
c18:	if J.3/9a then x else –.
c19:	if J.3/15a then m else –.
c20:	if J.3/15a or J.3/17a then x else –.
c21:	if J.3/15a or J.3/17a then m else –.
c22:	if J.3/16a then m else –.
c23:	if J.3/17a then m else –.
c24:	if J.3/18a then m else –.
c25:	if J.3/19a then m else –.
c26:	if J.3/20a then x else –.
c27:	if J.3/20a then m else –.
c28:	if J.3/22a then m else –.

J.4.4 Notifications**Table J.5 – Notification support**

Index	Notification type template label	Value of object identifier for notification type	Constraints and values	Status	Support		Additional information
					Con- firmed	Non- con- firmed	
1	objectCreation	{dmi-not 6}	–	c29			
2	objectDeletion	{dmi-not 7}	–	c29			
3	attributeValueChange	{dmi-not 1}	–	c30			
4	stateChange	{dmi-not 14}	–	c31			
5	qualityofServiceAlarm	{dmi-not 11}	–	c32			
c29: if J.3/11a then m else –. c30: if J.3/12a then m else –. c31: if J.3/13a then m else –. c32: if J.3/18a or J.16/22a then m else –.							

The detailed requirements for each of the above notifications for this managed object class are as specified in Table J.5. For this reason the table is not repeated here. The supplier of the implementation needs to complete a copy of Table J.5 for this managed object class if the support is different.

Anexo K⁷⁾ Formulario de MOCS

Para clase de objeto gestionado "supervisor de la media indicador de algoritmo"

(Este anexo es parte integrante de la presente Recomendación | Norma Internacional)

K.1 Introduction

The purpose of this MOCS proforma is to provide a mechanism for a supplier of an implementation which claims to conform to a managed object class, to provide conformance information in a standard form.

K.2 Instructions for completing the MOCS proforma to produce a MOCS

The MOCS proforma contained in this annex is comprised of information in tabular form, in accordance with ITU-T Rec. X.724 | ISO/IEC 10165-6. The supplier of the implementation shall state which items are supported in the tables below and if necessary, provide additional information.

K.3 Symbols, abbreviations and terms

The MOCS proforma contained in this annex is comprised of information in tabular form, in accordance with CCITT Rec. X.291 | ISO/IEC 9646-2.

The following abbreviations are used throughout this proforma:

dmi-att	joint-iso-itu-t ms(9) smi(3) part2(2) attribute(7)
dmi-not	joint-iso-itu-t ms(9) smi(3) part2(2) notification(10)
dmi-pkg	joint-iso-itu-t ms(9) smi(3) part2(2) package(4)
moa-mo	joint-iso-itu-t ms(9) function(2) part11(11) managedObjectClass(3)
moa-att	joint-iso-itu-t ms(9) function(2) part11(11) attribute(7)
moa-pkg	joint-iso-itu-t ms(9) function(2) part11(11) package(4)
m3100-pkg	itu-t recommendation(0) m(13) gnm(3100) m3100InformationModel(0) package(4)

The notations used in the Status and Support columns are specified in E.1.3.

K.4 Algorithm indicating mean monitor managed object class

K.4.1 Statement of conformance to the managed object class

Table K.1 – Managed object class support

Index	Managed object class template label	Value of object identifier for class	Support of all mandatory features? (Y/N)	Is the actual class the same as the managed object class to which conformance is claimed? (Y/N)
1	algorithmIndicating MeanMonitor	{moa-mo 8}		

⁷⁾ **Comunicado sobre derechos de autor del formulario de MOCS**

Los usuarios de esta Recomendación | Norma Internacional pueden reproducir libremente el formulario de MOCS de este anexo a fin de que pueda ser utilizado para los fines previstos, y pueden además publicar el MOCS cumplimentado. En la Rec. UIT-T X.724 | ISO/CEI 10165-6 se especifican las instrucciones para rellenar el formulario de MOCS.

If the answer to the actual class question in the managed object class support Table K.1 is no, then the supplier of the implementation shall fill in the actual class support Table K.2 below.

Table K.2 – Actual class support

Index	Actual managed object class template label	Value of object identifier for actual class	Additional information

K.4.2 Packages**Table K.3 – Package support**

Index	Package template label	Value of object identifier for package	Constraints and values	Status	Support	Additional Information
1	topPackage	–	–	m		
2	packagesPackage	{dmi-pkg 16}	–	c1		
3	allomorphicPackage	{dmi-pkg 17}	–	c2		
4	scannerPackage	–	–	m		
5	availabilityStatusPackage	{dmi-pkg 22}	–	c3		
6	duration	{dmi-pkg 26}	–	o		
7	dailyScheduling	{dmi-pkg 25}	–	o		
8	weeklyScheduling	{dmi-pkg 29}	–	o		
9	externalScheduler	{dmi-pkg 27}	–	o		
10	periodSynchronizationPackage	{moa-pkg 10}	–	o		
11	createDeleteNotificationPackage	{m3100-pkg 10}	–	o		
12	attributeValueChangeNotificationPackage	{m3100 pkg 4}	–	o		
13	stateChangeNotificationPackage	{m3100-pkg 28}	–	o		
14	monitorMetricPackage	–	–	m		
15	counterDifferencePackage	{moa-pkg 2}	–	o		
16	counterOverflowPackage	{moa-pkg 3}	–	o		
17	gaugeDifferencePackage	{moa-pkg 8}	–	o		
18	derivedGaugeThresholdPackage	{moa-pkg 4}	–	o		
19	specificProblemsIndicationPackage	{moa-pkg 9}	–	o		
20	derivedGaugeTimestampPackage	{moa-pkg 5}	–	o		
21	meanMonitorPackage	–	–	m		
22	estimateOfMeanThresholdPackage	{moa-pkg 6}	–	o		
23	algorithmIndicatingMeanMonitorPackage	–	–	m		
c1: if K.3/3a or K.3/5a or K.3/6a or K.3/7a or K.3/8a or K.3/9a or K.3/10a or K.3/11a or K.3/12a or K.3/13a or K.3/15a or K.3/16a or K.3/17a or K.3/18a or K.3/19a or K.3/20a or K.3/22a then m else –. c2: if K.1/1b then m else –. c3: if K.3/6a or K.3/7a or K.3/8a or K.3/9a then m else –.						

K.4.3 Attributes**Table K.4 – Attribute support**

Index	Attribute template label	Value of object identifier for attribute	Constraints and values	Set by create		Get		Replace	
				Status	Support	Status	Support	Status	Support
1	objectClass	{dmi-att 65}	–	m		m		x	
2	nameBinding	{dmi-att 63}	–	o		m		c4	
3	packages	{dmi-att 66}	–	c5		c6		c7	
4	allomorphs	{dmi-att 50}	–	c8		c9		c4	
5	scannerId	{moa-att 25}	–	o		m		c4	
6	granularityPeriod	{moa-att 23}	–	m		m		m	
7	administrativeState	{dmi-att 31}	–	m		m		m	
8	operationalState	{dmi-att 35}	–	x		m		x	
9	availabilityStatus	{dmi-att 33}	off-duty required	c10		c11		c10	
10	periodSynchronizationTime	{moa-att 24}	–	c12		c12		c12	
11	startTime	{dmi-att 68}	–	c13		c13		c13	
12	stopTime	{dmi-att 69}	DMI default	c13		c13		c13	
13	intervalsOfDay	{dmi-att 57}	DMI default	c14		c14		c14	
14	weekMask	{dmi-att 71}	DMI default	c15		c15		c15	
15	schedulerName	{dmi-att 67}	–	c16		c17		c18	
16	observedObjectInstance	{moa-att 16}	–	m		m		x	
17	observedAttributeId	{moa-att 15}	–	m		m		x	
18	derivedGauge	{moa-att 2}	–	x		m		x	
19	previousScanCounterValue	{moa-att 1}	–	c19		c19		c19	
20	proceduralStatus	{dmi-att 36}	–	c20		c21		c20	
21	modulusValue	{moa-att 1}	–	c22		c22		c22	
22	previousScanGaugeValue	{moa-att 20}	–	c23		c23		c23	
23	severityIndicatingGaugeThreshold	{moa-att 18}	–	c24		c24		c24	
24	specificProblemIndicator	{moa-att 19}	–	c25		c25		c25	
25	derivedGaugeTimestamp	{moa-att 3}	–	c26		c27		c26	
26	estimateOfMean	{moa-att 7}	–	m		m		m	
27	movingTimePeriod	{moa-att 13}	–	m		m		m	
28	estimateOfMeanSeverityIndicatingGaugeThreshold	{moa-att 6}	–	c28		c28		c28	
29	algorithmIdentifier	{moa-att 26}	–	m		m		m	

Table K.4 (continued)

Index	Add		Remove		Set to default		Additional information
	Status	Support	Status	Support	Status	Support	
1	—		—		x		
2	—		—		c4		
3	c7		c7		c7		
4	c4		c4		c4		
5	—		—		c4		
6	—		—		c4		
7	—		—		c4		
8	—		—		x		
9	c10		c10		c10		
10	—		—		c4		
11	—		—		c4		
12	—		—		c13		
13	c14		c14		c14		
14	c15		c15		c15		
15	—		—		c18		
16	—		—		x		
17	—		—		x		
18	—		—		x		
19	—		—		c4		
20	—		—		c20		
21	—		—		c4		
22	—		—		c4		
23	c24		c24		c4		
24	—		—		c4		
25	—		—		c26		
26	—		—		c4		
27	—		—		c4		
28	c28		c28		c4		
29	—		—		c4		
c4: if K.1/1b then x else —. c5: if K.3/2a then o else —. c6: if K.3/2a then m else —. c7: if K.3/2a then x else —. c8: if K.3/3a then o else —. c9: if K.3/5a then m else —. c10: if K.3/5a then x else —. c11: if K.3/5a then m else —.							

Table K.4 (concluded)

c12: if K.3/10a then m else –.
c13: if K.3/6a then m else –.
c14: if K.3/7a then m else –.
c15: if K.3/8a then m else –.
c16: if K.3/9a then o else –.
c17: if K.3/9a then m else –.
c18: if K.3/9a then x else –.
c19: if K.3/15a then m else –.
c20: if K.3/15a or K.3/17a then x else –.
c21: if K.3/15a or K.3/17a then m else –.
c22: if K.3/16a then m else –.
c23: if K.3/17a then m else –.
c24: if K.3/18a then m else –.
c25: if K.3/19a then m else –.
c26: if K.3/20a then x else –.
c27: if K.3/20a then m else –.
c28: if K.3/22a then m else –.

K.4.4 Notifications**Table K.5 – Notification support**

Index	Notification type template label	Value of object identifier for notification type	Constraints and values	Status	Support		Additional information
					Con-firmed	Non-con-firmed	
1	objectCreation	{dmi-not 6}	–	c29			
2	objectDeletion	{dmi-not 7}	–	c29			
3	attributeValueChange	{dmi-not 1}	–	c30			
4	stateChange	{dmi-not 14}	–	c31			
5	qualityofServiceAlarm	{dmi-not 11}	–	c32			
c29: if K.3/11a then m else –. c30: if K.3/12a then m else –. c31: if K.3/13a then m else –. c32: if K.3/18a or K.3/22a then m else –.							

The detailed requirements for each of the above notifications for this managed object class are as specified in Table G.5. For this reason the table is not repeated here. The supplier of the implementation needs to complete a copy of Table G.5 for this managed object class if the support is different.

Anexo L⁸⁾ Formulario de MOCS

Para clase de objeto gestionado "supervisor de la media"

(Este anexo es parte integrante de la presente Recomendación | Norma Internacional)

L.1 Introduction

The purpose of this MOCS proforma is to provide a mechanism for a supplier of an implementation which claims to conform to a managed object class, to provide conformance information in a standard form.

L.2 Instructions for completing the MOCS proforma to produce a MOCS

The MOCS proforma contained in this annex is comprised of information in tabular form, in accordance with ITU-T Rec. X.724 | ISO/IEC 10165-6. The supplier of the implementation shall state which items are supported in the tables below and if necessary, provide additional information.

L.3 Symbols, abbreviations and terms

The MOCS proforma contained in this annex is comprised of information in tabular form, in accordance with CCITT Rec. X.291 | ISO/IEC 9646-2.

The following abbreviations are used throughout this proforma:

dmi-att	joint-iso-itu-t ms(9) smi(3) part2(2) attribute(7)
dmi-not	joint-iso-itu-t ms(9) smi(3) part2(2) notification(10)
dmi-pkg	joint-iso-itu-t ms(9) smi(3) part2(2) package(4)
moa-mo	joint-iso-itu-t ms(9) function(2) part11(11) managedObjectClass(3)
moa-att	joint-iso-itu-t ms(9) function(2) part11(11) attribute(7)
moa-pkg	joint-iso-itu-t ms(9) function(2) part11(11) package(4)
m3100-pkg	itu-t recommendation(0) m(13) gnm(3100) m3100InformationModel(0) package(4)

The notations used in the Status and Support columns are specified in E.1.3.

L.4 Mean monitor managed object class

L.4.1 Statement of conformance to the managed object class

Table L.1 – Managed object class support

Index	Managed object class template label	Value of object identifier for class	Support of all mandatory features? (Y/N)	Is the actual class the same as the managed object class to which conformance is claimed? (Y/N)
1	MeanMonitor	{moa-mo 4}		

⁸⁾ **Comunicado sobre derechos de autor del formulario de MOCS**

Los usuarios de esta Recomendación | Norma Internacional pueden reproducir libremente el formulario de MOCS de este anexo a fin de que pueda ser utilizado para los fines previstos, y pueden además publicar el MOCS cumplimentado. En la Rec. UIT-T X.724 | ISO/CEI 10165-6 se especifican las instrucciones para rellenar el formulario de MOCS.

If the answer to the actual class question in the managed object class support Table L.1 is no, then the supplier of the implementation shall fill in the actual class support Table L.2 below.

Table L.2 – Actual class support

Index	Actual managed object class template label	Value of object identifier for actual class	Additional information

L.4.2 Packages**Table L.3 – Package support**

Index	Package template label	Value of object identifier for package	Constraints and values	Status	Support	Additional Information
1	topPackage	–	–	m		
2	packagesPackage	{dmi-pkg 16}	–	c1		
3	allomorphicPackage	{dmi-pkg 17}	–	c2		
4	scannerPackage	–	–	m		
5	availabilityStatusPackage	{dmi-pkg 22}	–	c3		
6	duration	{dmi-pkg 26}	–	o		
7	dailyScheduling	{dmi-pkg 25}	–	o		
8	weeklyScheduling	{dmi-pkg 29}	–	o		
9	externalScheduler	{dmi-pkg 27}	–	o		
10	periodSynchronizationPackage	{moa-pkg 10}	–	o		
11	createDeleteNotificationPackage	{m3100-pkg 10}	–	o		
12	attributeValueChangeNotificationPackage	{m3100 pkg 4}	–	o		
13	stateChangeNotificationPackage	{m3100-pkg 28}		o		
14	monitorMetricPackage	–	–	m		
15	counterDifferencePackage	{moa-pkg 2}	–	o		
16	counterOverflowPackage	{moa-pkg 3}	–	o		
17	gaugeDifferencePackage	{moa-pkg 8}	–	o		
18	derivedGaugeThresholdPackage	{moa-pkg 4}	–	o		
19	specificProblemsIndicationPackage	{moa-pkg 9}	–	o		
20	derivedGaugeTimestampPackage	{moa-pkg 5}	–	o		
21	meanMonitorPackage	–		m		
22	estimateOfMeanThresholdPackage	{moa-pkg 6}	–	o		
c1: if L.3/3a or L.3/5a or L.3/6a or L.3/7a or L.3/8a or L.3/9a or L.3/10a or L.3/11a or L.3/12a or L.3/13a or L.3/15a or L.3/16a or L.3/17a or L.3/18a or L.3/19a or L.3/20a or L.3/22a then m else –. c2: if L.1/1b then m else –. c3: if L.3/6a or L.3/7a or L.3/8a or L.3/9a then m else –.						

L.4.3 Attributes

Table L.4 – Attribute support

Index	Attribute template label	Value of object identifier for attribute	Constraints and values	Set by create		Get		Replace	
				Status	Support	Status	Support	Status	Support
1	objectClass	{dmi-att 65}	–	m		m		x	
2	nameBinding	{dmi-att 63}	–	o		m		c4	
3	packages	{dmi-att 66}	–	c5		c6		c7	
4	allomorphs	{dmi-att 50}	–	c8		c9		c4	
5	scannerId	{moa-att 25}	–	o		m		c4	
6	granularityPeriod	{moa-att 23}	–	m		m		m	
7	administrativeState	{dmi-att 31}	–	m		m		m	
8	operationalState	{dmi-att 35}	–	x		m		x	
9	availabilityStatus	{dmi-att 33}	off-duty required	c10		c11		c10	
10	periodSynchronizationTime	{moa-att 24}	–	c12		c12		c12	
11	startTime	{dmi-att 68}	–	c13		c13		c13	
12	stopTime	{dmi-att 69}	DMI default	c13		c13		c13	
13	intervalsOfDay	{dmi-att 57}	DMI default	c14		c14		c14	
14	weekMask	{dmi-att 71}	DMI default	c15		c15		c15	
15	schedulerName	{dmi-att 67}	–	c16		c17		c18	
16	observedObjectInstance	{moa-att 16}	–	m		m		x	
17	observedAttributeId	{moa-att 15}	–	m		m		x	
18	derivedGauge	{moa-att 2}	–	x		m		x	
19	previousScanCounterValue	{moa-att 1}	–	c19		c19		c19	
20	proceduralStatus	{dmi-att 36}	–	c20		c21		c20	
21	modulusValue	{moa-att 1}	–	c22		c22		c22	
22	previousScanGaugeValue	{moa-att 20}	–	c23		c23		c23	
23	severityIndicatingGaugeThreshold	{moa-att 18}	–	c24		c24		c24	
24	specificProblemIndicator	{moa-att 19}	–	c25		c25		c25	
25	derivedGaugeTimestamp	{moa-att 3}	–	c26		c27		c26	
26	estimateOfMean	{moa-att 7}	–	m		m		m	
27	movingTimePeriod	{moa-att 13}	–	m		m		m	
28	estimateOfMeanSeverityIndicatingGaugeThreshold	{moa-att 6}	–	c28		c28		c28	

Table L.4 (continued)

Index	Add		Remove		Set to default		Additional information
	Status	Support	Status	Support	Status	Support	
1	–		–		x		
2	–		–		c4		
3	c7		c7		c7		
4	c4		c4		c4		
5	–		–		c4		
6	–		–		c4		
7	–		–		c4		
8	–		–		x		
9	c10		c10		c10		
10	–		–		c4		
11	–		–		c4		
12	–		–		c13		
13	c14		c14		c14		
14	c15		c15		c15		
15	–		–		c18		
16	–		–		x		
17	–		–		x		
18	–		–		x		
19	–		–		c4		
20	–		–		c20		
21	–		–		c4		
22	–		–		c4		
23	c24		c24		c4		
24	–		–		c4		
25	–		–		c26		
26	–		–		c4		
27	–		–		c4		
28	c28		c28		c4		
c4: if L.1/1b then x else –. c5: if L.3/2a then o else –. c6: if L.3/2a then m else –. c7: if L.3/2a then x else –. c8: if L.3/3a then o else –. c9: if L.3/5a then m else –. c10: if L.3/5a then x else –. c11: if L.3/5a then m else –.							

Table L.4 (concluded)

c12:	if L.3/10a then m else –.
c13:	if L.3/6a then m else –.
c14:	if L.3/7a then m else –.
c15:	if L.3/8a then m else –.
c16:	if L.3/9a then o else –.
c17:	if L.3/9a then m else –.
c18:	if L.3/9a then x else –.
c19:	if L.3/15a then m else –.
c20:	if L.3/15a or L.3/17a then x else –.
c21:	if L.3/15a or L.3/17a then m else –.
c22:	if L.3/16a then m else –.
c23:	if L.3/17a then m else –.
c24:	if L.3/18a then m else –.
c25:	if L.3/19a then m else –.
c26:	if L.3/20a then x else –.
c27:	if L.3/20a then m else –.
c28:	if L.3/22a then m else –.

L.4.4 Notifications**Table L.5 – Notification support**

Index	Notification type template label	Value of object identifier for notification type	Constraints and values	Status	Support		Additional information
					Con-firmed	Non-con-firmed	
1	objectCreation	{dmi-not 6}	–	c29			
2	objectDeletion	{dmi-not 7}	–	c29			
3	attributeValueChange	{dmi-not 1}	–	c30			
4	stateChange	{dmi-not 14}	–	c31			
5	qualityofServiceAlarm	{dmi-not 11}	–	c32			
c29: if L.3/11a then m else –. c30: if L.3/12a then m else –. c31: if L.3/13a then m else –. c32: if L.3/18a or L.3/22a then m else –.							

The detailed requirements for each of the above notifications for this managed object class are as specified in Table G.5. For this reason the table is not repeated here. The supplier of the implementation needs to complete a copy of Table G.5 for this managed object class if the support is different.

Anexo M⁹⁾ Formulario de MOCS

Para clase de objeto gestionado "objeto métrico supervisor"

(Este anexo es parte integrante de la presente Recomendación | Norma Internacional)

M.1 Introduction

The purpose of this MOCS proforma is to provide a mechanism for a supplier of an implementation which claims to conform to a managed object class, to provide conformance information in a standard form.

M.2 Instructions for completing the MOCS proforma to produce a MOCS

The MOCS proforma contained in this annex is comprised of information in tabular form, in accordance with ITU-T Rec. X.724 | ISO/IEC 10165-6. The supplier of the implementation shall state which items are supported in the tables below and if necessary, provide additional information.

M.3 Symbols, abbreviations and terms

The MOCS proforma contained in this annex is comprised of information in tabular form, in accordance with CCITT Rec. X.291 | ISO/IEC 9646-2.

The following abbreviations are used throughout this proforma:

dmi-att	joint-iso-itu-t ms(9) smi(3) part2(2) attribute(7)
dmi-not	joint-iso-itu-t ms(9) smi(3) part2(2) notification(10)
dmi-pkg	joint-iso-itu-t ms(9) smi(3) part2(2) package(4)
moa-mo	joint-iso-itu-t ms(9) function(2) part11(11) managedObjectClass(3)
moa-att	joint-iso-itu-t ms(9) function(2) part11(11) attribute(7)
moa-pkg	joint-iso-itu-t ms(9) function(2) part11(11) package(4)
m3100-pkg	itu-t recommendation(0) m(13) gnm(3100) m3100InformationModel(0) package(4)

The notations used in the Status and Support columns are specified in E.1.3.

M.4 Monitor metric managed object class

M.4.1 Statement of conformance to the managed object class

Table M.1 – Managed object class support

Index	Managed object class template label	Value of object identifier for class	Support of all mandatory features? (Y/N)	Is the actual class the same as the managed object class to which conformance is claimed? (Y/N)
1	monitorMetric	{moa-mo 5}		

⁹⁾ **Comunicado sobre derechos de autor del formulario de MOCS**

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If the answer to the actual class question in the managed object class support Table M.1 is no, then the supplier of the implementation shall fill in the actual class support Table M.2 below.

Table M.2 – Actual class support

Index	Actual managed object class template label	Value of object identifier for actual class	Additional information

M.4.2 Packages**Table M.3 – Package support**

Index	Package template label	Value of object identifier for package	Constraints and values	Status	Support	Additional Information
1	topPackage	–	–	m		
2	packagesPackage	{dmi-pkg 16}	–	c1		
3	allomorphicPackage	{dmi-pkg 17}	–	c2		
4	scannerPackage	–	–	m		
5	availabilityStatusPackage	{dmi-pkg 22}	–	c3		
6	duration	{dmi-pkg 26}	–	o		
7	dailyScheduling	{dmi-pkg 25}	–	o		
8	weeklyScheduling	{dmi-pkg 29}	–	o		
9	externalScheduler	{dmi-pkg 27}	–	o		
10	periodSynchronizationPackage	{moa-pkg 10}	–	o		
11	createDeleteNotificationPackage	{m3100-pkg 10}	–	o		
12	attributeValueChangeNotificationPackage	{m3100 pkg 4}	–	o		
13	stateChangeNotificationPackage	{m3100-pkg 28}	–	o		
14	monitorMetricPackage	–	–	m		
15	counterDifferencePackage	{moa-pkg 2}	–	o		
16	counterOverflowPackage	{moa-pkg 3}	–	o		
17	gaugeDifferencePackage	{moa-pkg 8}	–	o		
18	derivedGaugeThresholdPackage	{moa-pkg 4}	–	o		
19	specificProblemsIndicationPackage	{moa-pkg 9}	–	o		
20	derivedGaugeTimestampPackage	{moa-pkg 5}	–	o		
c1: if M.3/3a or M.3/5a or M.3/6a or M.3/7a or M.3/8a or M.3/9a or M.3/10a or M.3/11a or M.3/12a or M.3/13a or M.3/15a or M.3/16a or M.3/17a or M.3/18a or M.3/19a or M.3/20a or M.3/22a then m else –. c2: if M.1/1b then m else –. c3: if M.3/6a or M.3/7a or M.3/8a or M.3/9a then m else –.						

M.4.3 Attributes**Table M.4 – Attribute support**

Index	Attribute template label	Value of object identifier for attribute	Constraints and values	Set by create		Get		Replace	
				Status	Support	Status	Support	Status	Support
1	objectClass	{dmi-att 65}	–	m		m		x	
2	nameBinding	{dmi-att 63}	–	o		m		c4	
3	packages	{dmi-att 66}	–	c5		c6		c7	
4	allomorphs	{dmi-att 50}	–	c8		c9		c4	
5	scannerId	{moa-att 25}	–	o		m		c4	
6	granularityPeriod	{moa-att 23}	–	m		m		m	
7	administrativeState	{dmi-att 31}	–	m		m		m	
8	operationalState	{dmi-att 35}	–	x		m		x	
9	availabilityStatus	{dmi-att 33}	off-duty required	c10		c11		c10	
10	periodSynchronizationTime	{moa-att 24}	–	c12		c12		c12	
11	startTime	{dmi-att 68}	–	c13		c13		c13	
12	stopTime	{dmi-att 69}	DMI default	c13		c13		c13	
13	intervalsOfDay	{dmi-att 57}	DMI default	c14		c14		c14	
14	weekMask	{dmi-att 71}	DMI default	c15		c15		c15	
15	schedulerName	{dmi-att 67}	–	c16		c17		c18	
16	observedObjectInstance	{moa-att 16}	–	m		m		x	
17	observedAttributeId	{moa-att 15}	–	m		m		x	
18	derivedGauge	{moa-att 2}	–	x		m		x	
19	previousScanCounterValue	{moa-att 1}	–	c19		c19		c19	
20	proceduralStatus	{dmi-att 36}	–	c20		c21		c20	
21	modulusValue	{moa-att 1}	–	c22		c22		c22	
22	previousScanGaugeValue	{moa-att 20}	–	c23		c23		c23	
23	severityIndicatingGaugeThreshold	{moa-att 18}	–	c24		c24		c24	
24	specificProblemIndicator	{moa-att 19}	–	c25		c25		c25	
25	derivedGaugeTimestamp	{moa-att 3}	–	c26		c27		c26	

Table M.4 (continued)

Index	Add		Remove		Set to default		Additional information
	Status	Support	Status	Support	Status	Support	
1	—		—		x		
2	—		—		c4		
3	c7		c7		c7		
4	c4		c4		c4		
5	—		—		c4		
6	—		—		c4		
7	—		—		c4		
8	—		—		x		
9	c10		c10		c10		
10	—		—		c4		
11	—		—		c4		
12	—		—		c13		
13	c14		c14		c14		
14	c15		c15		c15		
15	—		—		c18		
16	—		—		x		
17	—		—		x		
18	—		—		x		
19	—		—		c4		
20	—		—		c20		
21	—		—		c4		
22	—		—		c4		
23	c24		c24		c4		
24	—		—		c4		
25	—		—		c26		
c4: if M.1/1b then x else —. c5: if M.3/2a then o else —. c6: if M.3/2a then m else —. c7: if M.3/2a then x else —. c8: if M.3/3a then o else —. c9: if M.3/5a then m else —. c10: if M.3/5a then x else —. c11: if M.3/5a then m else —. c12: if M.3/10a then m else —. c13: if M.3/6a then m else —. c14: if M.3/7a then m else —.							

Table M.4 (concluded)

c15: if M.3/8a then m else –.
 c16: if M.3/9a then o else –.
 c17: if M.3/9a then m else –.
 c18: if M.3/9a then x else –.
 c19: if M.3/15a then m else –.
 c20: if M.3/15a or M.3/17a then x else –.
 c21: if M.3/15a or M.3/17a then m else –.
 c22: if M.3/16a then m else –.
 c23: if M.3/17a then m else –.
 c24: if M.3/18a then m else –.
 c25: if M.3/19a then m else –.
 c26: if M.3/20a then x else –.
 c27: if M.3/20a then m else –.

M.4.4 Notifications**Table M.5 – Notification support**

Index	Notification type template label	Value of object identifier for notification type	Constraints and values	Status	Support		Additional information
					Con- firmed	Non- con- firmed	
1	objectCreation	{dmi-not 6}	–	c28			
2	objectDeletion	{dmi-not 7}	–	c28			
3	attributeValueChange	{dmi-not 1}	–	c29			
4	stateChange	{dmi-not 14}	–	c30			
5	qualityofServiceAlarm	{dmi-not 11}	–	c31			
c28: if M.3/11a then m else –. c29: if M.3/12a then m else –. c30: if M.3/13a then m else –. c31: if M.3/18a then m else –.							

The detailed requirements for each of the above notifications for this managed object class are as specified in Table G.5. For this reason the table is not repeated here. The supplier of the implementation needs to complete a copy of Table G.5 for this managed object class if the support is different.

Anexo N¹⁰⁾**Formulario de MRCS para vinculación de nombre**

(Este anexo es parte integrante de la presente Recomendación | Norma Internacional)

N.1 Introduction

The purpose of this MRCS proforma for name bindings is to provide a mechanism for a supplier which claims conformance to a name binding to provide conformance information in a standard form.

The following abbreviation is used in this proforma:

moa-nb joint-iso-itu-t ms(9) function(2) part11(11) nameBinding(6)

N.2 Instructions for completing the MRCS proforma for name binding to produce a MRCS

The supplier of the implementation shall state which items are supported in the tables below and if necessary provide additional information.

The notations used in the Status and Support columns are specified in E.1.3.

N.3 Statement of conformance to the name binding**Table N.1 – Name binding support**

Index	Name binding template label	Value of object identifier for name binding	Constraints and values	Status	Support	Additional information
1	scanner–system	{moa-nb 0}	–	o		

Table N.1 (concluded)

Index	Subindex	Operation	Constraints and values	Status	Support	Additional information
1	1.1	Create support	–	c:m		
	1.1.1	Create with reference object	–	c:m		
	1.1.2	Create with automatic instance naming	–	c:m		
	1.2	Delete support	–	c:m		
	1.2.1	Delete only if no contained objects	–	c:m		
	1.2.2	Delete contained objects	–	c:x		

NOTE – The conflictingPackageScanner-system name binding in ITU-T Rec. X.738 | ISO/IEC 10164-13 is equivalent to the scanner-system name binding, and, in addition, provides for indicating errors.

¹⁰⁾ **Comunicado sobre derechos de autor del formulario de MRCS**

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