ISO/CCITT and Internet Management Coexistence (IIMC):

Translation of Internet MIB-II (RFC1213) to ISO/CCITT GDMO MIB

(IIMCMIB-II)

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Lee LaBarre (Editor)

The MITRE Corporation
Burlington Road
Bedford, MA 01730
cel@mbunix.mitre.org

Status of this Memo

This document provides information to the network and systems management community. This document is intended as a contribution to ongoing work in the area of multi-protocol management coexistence and interworking. This document is part of a package; see also [IIMCOMIBTRANS] [IIMCIMIBTRANS] [IIMCPROXY] and [IIMCSEC]. Distribution of this document is unlimited. Comments should be sent to the Network Management Forum IIMC working group (iimc@thumper.bellcore.com).

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Abstract

This document is intended to facilitate the multi-protocol management coexistence and interworking for networks that are managed using the ISO/CCITT Common Management Information Protocol (CMIP) and networks that are managed using the Internet Simple Network Management Protocol (SNMP). This document contains the ISO/CCITT GDMO definition and registration of MIB-II as derived from the Internet MIB-II [14], according to the procedures defined in "Translation of Internet MIBs to ISO/CCITT GDMO MIBs" [19]. In addition, this document includes a translated IPForwarding Table as derived from the Internet definition in [15].

Table of Contents

1. INTRODUCTION 1

1.1 PROBLEM STATEMENT 1

1.2 OVERVIEW OF IIMC 1

1.3 MIB TRANSLATION PROCEDURES 2

1.4 NATIVE MANAGEMENT MODEL 3

1.5 PROXY MANAGEMENT MODEL 4

1.6 SCOPE OF THIS DOCUMENT 4

1.7 TERMS AND CONVENTIONS 5

2. IIMCMIB-II MIB 6

-- 2.1 IIMCMIB-II GDMO TEMPLATES 7
-- 2.1.1 IIMCMIB-II Managed Object Classes 7
-- 2.1.2 IIMCMIB-II Attributes 17
-- 2.1.3 IIMCMIB-II Name Bindings 76

-- 2.2 IIMCMIB-II ASN.1 MODULE 81

3. CONFORMANCE 87

ANNEX A (NORMATIVE): MANAGED OBJECT CONFORMANCE STATEMENTS (MOCS) 1

A.1 AT [{IIMCRFC12131354}] A-1

A.2 ATENTRY [{IIMCRFC12131354}] A-2

A.3 EGP [{IIMCRFC12131354}] A-4

A.4 EGPNEIGHENTRY [{IIMCRFC12131354}] A-6

A.5 ICMP [{IIMCRFC12131354}] A-9

A.6 IFENTRY [{IIMCRFC12131354}] A-12

A.7 INTERFACES [{IIMCRFC12131354}] A-15

A.8 INTERNETSYSTEM [{IIMCRFC12131354}] A-17

A.9 IP [{IIMCRFC12131354}] A-20

A.10 IPADDRENTRY [{IIMCRFC12131354}] A-23

A.11 IPFORWARDENTRY [{IIMCRFC12131354}] A-25

A.12 IPNETTOMEDIAENTRY [{IIMCRFC12131354}] A-28

A.13 IPROUTEENTRY [{IIMCRFC12131354}] A-29

A.14 SNMP [{IIMCRFC12131354}] A-33

A.15 TCP [{IIMCRFC12131354}] A-36

A.16 TCPCONNENTRY [{IIMCRFC12131354}] A-39

A.17 UDP [{IIMCRFC12131354}] A-41

A.18 UDPENTRY [{IIMCRFC12131354}] A-43

ANNEX B: GLOSSARY B-1

ANNEX C: REFERENCES C-1

List of Figures

FIGURE 1. MIB TRANSLATION 2

FIGURE 2. NATIVE MANAGEMENT 3

FIGURE 3. PROXY MANAGEMENT 4

REVISION HISTORY

Issue 1.0, October 1993

This is the first issue of this document. The internet draft <draft-labarre-iimc-mibii-04>, dated February, 1994, is identical in content to Issue 1.0, October 1993. It has been reformatted for posting as an internet draft.

1. INTRODUCTION

This section provides an overview of ISO/CCITT and Internet Management Coexistence (IIMC) activities, insight into the problem being addressed by IIMC, and a brief introduction to the strategy adopted by IIMC: use of translated MIBs in either a proxy or native implementation. The section concludes by describing the scope of this document, and terms and conventions used by this document.

1.1 PROBLEM STATEMENT

The need for enterprise network management has been addressed by development of network management standards within various communities, most notably the ISO/CCITT and Internet communities.

- The ISO/CCITT community developed the Common Management Information Protocol (CMIP) [5], and related SMI documents [7,8,9].

- The Internet community developed the Simple Network Management Protocol (SNMP) [12], and its successor, SNMPv2 [18]. The Internet SMI is defined in [11] and [17].

These standards share a nearly common management model, but diverge due to differing management philosophies. Although functionally similar, the Internet and ISO/CCITT protocols and SMIs differ in terms of their complexity and specific operations. Business requirements for end-to-end enterprise management include the need to integrate the management of many different devices, potentially owned or administered by many independent organizations. This requires components to be accessed by ISO/CCITT management, Internet management, and proprietary management mechanisms in a manner which presents a unified view of the network, despite protocol and SMI differences.

For example, many telecommunications and computer vendors, represented by organizations such as the Network Management Forum (NMF), and the U.S. government, as specified in the Government Network Management Profile (GNMP) Version 1.0 [24], have based their enterprise management model on the ISO/CCITT management model. These organizations are particularly interested in integrated management of devices that use the Internet management. This interest is primarily due to the widespread commercial implementation and use of such devices, especially devices that use the Internet TCP/IP protocol suite.

1.2 OVERVIEW OF IIMC

The ISO/CCITT and Internet Management Coexistence (IIMC) package includes the following documents.

IIMCIMIBTRANS	Translation of Internet MIBs to ISO/CCITT GDMO MIBs [19]
IIMCOMIBTRANS	Translation of ISO/CCITT GDMO MIBs to Internet MIBs [22]
IIMCMIB-II	Translation of Internet MIB-II (RFC1213) to ISO/CCITT GDMO MIB

IIMCPROXY ISO/CCITT to Internet Management Proxy [20]

IIMCSEC ISO/CCITT to Internet Management Security [21]

These documents together comprise a package aimed at integrating ISO/CCITT-based and Internet-based management systems.

IIMC specifications address the problem that end-to-end management requires an integrated, unified view of the managed network, despite differences in management protocol and information structure. Integrated management can be facilitated by the development of "proxy" mechanisms which translate between functionally equivalent service, protocol, and SMI differences to create this unified view. MIB translation procedures can be used to support proxy management, as well as to take advantage of existing MIB definition and avoid duplication of effort. In this way, commercial investment in both ISO/CCITT and Internet-based management technologies can be preserved through deployment of common methods and tools which support integration.

This overall strategy was outlined in a joint publication developed by the NM Forum and X/Open entitled "ISO/CCITT and Internet Management: Coexistence and Interworking Strategy" [23]. The documents included in the IIMC package are the next level of detailed specifications which implement several of the methodologies identified in the strategy. Additional specifications may be defined in the future.

1.3 MIB TRANSLATION PROCEDURES

The foundation of IIMC is provided by a pair of Management Information Base (MIB) translation procedures.

- IIMCIMIBTRANS [19] specifies translation procedures for converting MIBs from Internet MIB macro format into ISO/CCITT GDMO template format.

- IIMCOMIBTRANS [22] specifies translation procedures for converting MIBs from ISO/CCITT GDMO template format into Internet MIB macro format.

The IIMC approach is to specify direct translation procedures which yield a pair of functionally-equivalent MIBs, as shown in Figure 1.

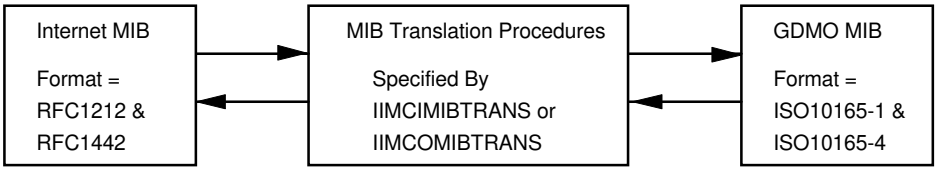


Figure 1. MIB translation.

MIBs translated by these procedures may be used to take advantage of existing MIB definitions when business needs require deployment in a different management environment. Translated MIBs may also be used to provide uniformity when multiple management environments are supported by a single system (e.g., dual stack managers). Finally, IIMC MIB translation procedures may be used to support service emulation by a proxy.

1.4 NATIVE MANAGEMENT MODEL

The basic model for ISO/CCITT and Internet management is illustrated in the following diagram.

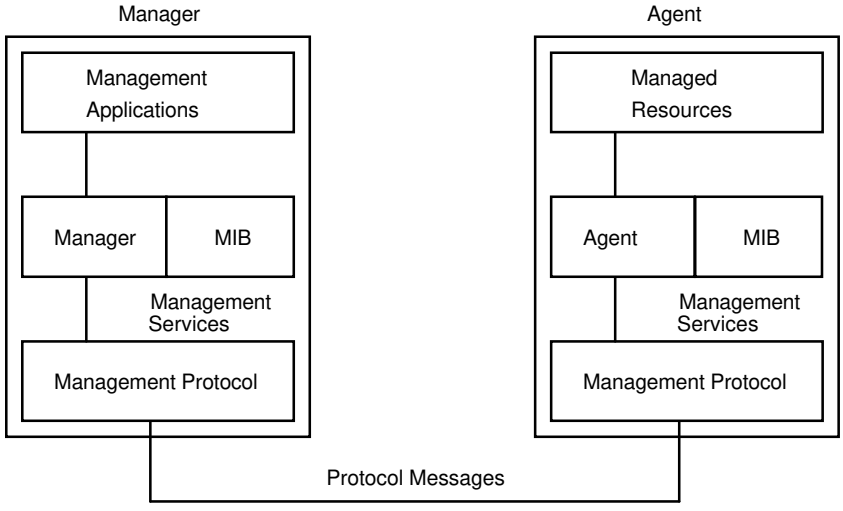


Figure 2. Native management.

Within IIMC documents, this model is referred to as the "native" management model. MIBs translated using IIMC procedures can be used by "native" agent implementations. For example, an ISO/CCITT agent can make visible TCP/IP managed resources using the translated GDMO version of the Internet MIB-II [14] specified by [19]. Dual-stack managers or agents may also be implemented which support both the original MIB and the translated MIB generated using IIMC-specified procedures.

1.5 PROXY MANAGEMENT MODEL

The basic model for ISO/CCITT to Internet proxy management is illustrated in the following diagram. This proxy is specified by [20]. A similar approach could also be taken to specify an Internet to ISO/CCITT proxy, although no such IIMC document is currently specified.

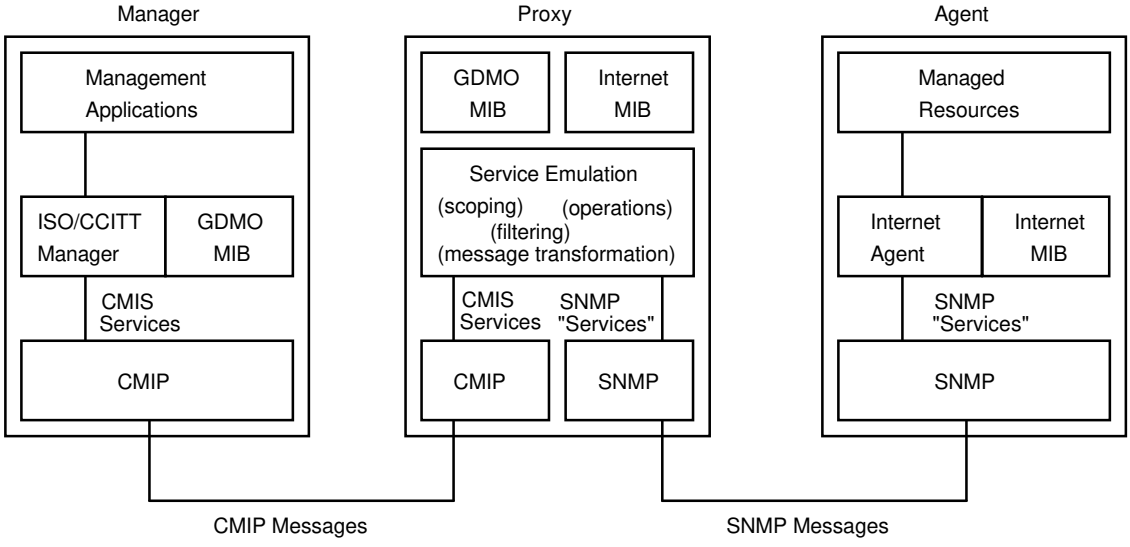


Figure 3. Proxy management.

This ISO/CCITT to Internet proxy provides emulation of CMIS services by mapping to the corresponding SNMP message(s) necessary to carry out the service request. The service emulation allows management of Internet objects by an ISO/CCITT manager. The left hand side of the proxy behaves like an ISO/CCITT agent, communicating with the ISO/CCITT manager using CMIP protocols. The right hand side of the proxy behaves like an Internet manager, communicating with the Internet agent using SNMP protocols.

The proxy relies on the existence of a pair of directly-related MIB definitions, where the Internet MIB has been translated into ISO/CCITT GDMO using the procedures specified in IIMCIMIBTRANS. The proxy uses these MIB definitions and rules to provide run-time translation of management information carried in service requests and responses.

The proxy is designed with a specified interface between the proxy and the underlying protocol stacks, and so deals primarily in terms of CMIS services and SNMP "services". The proxy emulates services such as CMIS scoping and filtering, processing of CMIP operations, and forwarding/logging of CMIS notifications by performing a mapping process which must be tailored for each protocol (for example, SNMPv1 and SNMPv2 are variants of the same protocol mapping process).

1.6 SCOPE OF THIS DOCUMENT

A major reason for the rapid commercialization of devices manageable via the Internet management protocol is due to the speed with which the vendors in the Internet community have been able to develop MIBs based on the Internet SMI. To capitalize on this continuing Internet MIB development and their deployment in commercial devices, communities interested in integrated management via CMIP/SNMP proxies, and communities interested in using native

CMIP agents to manage TCP/IP resources, require the translation of Internet MIBs defined according to the Internet Structure of Management Information (SMI) [11] [17] into MIBs defined according to the ISO SMI [7] and Guidelines for the Definition of Managed Objects (GDMO) [9]. Procedures for such translations are described in [19].

This document (IIMCMIB-II) applies the procedures described in [19] to the translation and registration of the Internet MIB-II as defined in [14], and to the IP Forwarding Table defined in [15].

This document assumes that the reader is familiar with the ISO/CCITT SMI and terminology as well as the Internet to SMI translation defined in [19].

1.7 TERMS AND CONVENTIONS

This document assumes that the reader is familiar with the ISO/CCITT SMI and Internet SMI, and the terminology of each. The term SNMP will be used throughout the document to indicate either SNMPv1 or SNMPv2, unless a distinction needs to be made.

Other terms and conventions used throughout this document include the following.

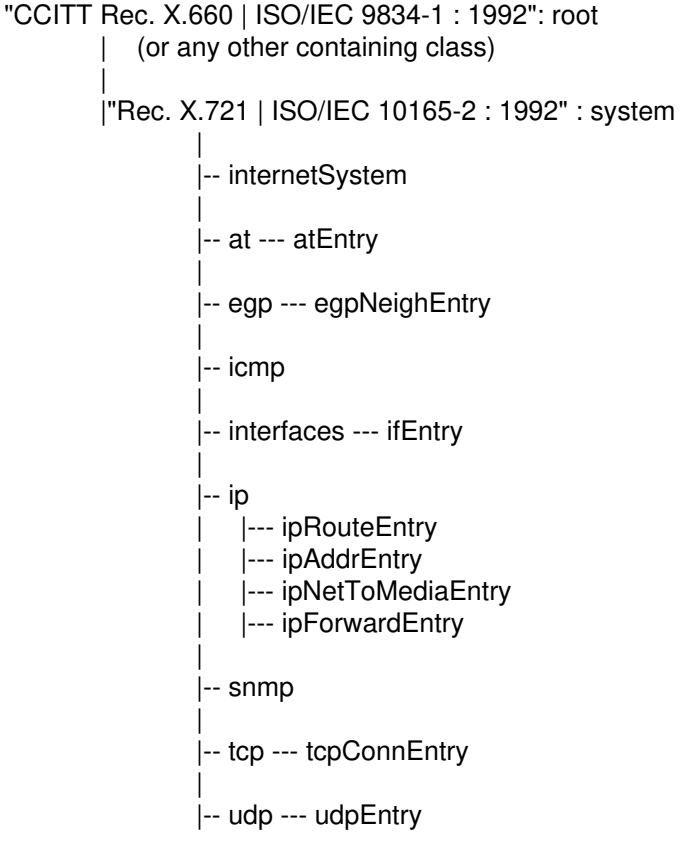
Proxy: An intermediate process that provides protocol and SMI translation between two management services and SMIs.

2. IIMCMIB-II MIB

The Internet MIB-II objects [14] are recast into ISO/CCITT GDMO templates as defined in [9], and registered, using the procedures defined in [19].

Name Binding templates that define the containment hierarchy for the ISO/CCITT MIB-II managed object classes are listed. A proxy implementation would have multiple instances of the ISO/CCITT system managed object, one for each Internet agent, and one for the proxy itself.

A Naming Tree diagram for IIMC MIB-II managed object classes is illustrated below.



The GDMO templates and ASN.1 modules are included here in one section to facilitate automated processing. Comments and subsection headers are included in the form of ASN.1 comments, i.e., preceded by "--".

This document (IIMCMIB-II) is allocated the following registration identifier for purposes of referencing material contained herein.

```
iimcRFC12131354 OBJECT IDENTIFIER ::= {iimcAutoDocument 1213 1354}
```

-- 2.1 IIMCMIB-II GDMO TEMPLATES

-- 2.1.1 IIMCMIB-II Managed Object Classes

```
at  MANAGED OBJECT CLASS
   DERIVED FROM  "Rec. X.721 | ISO/IEC 10165-2:1992":top;
   CHARACTERIZED BY
       atPkg PACKAGE
             BEHAVIOUR
                 atPkgBehaviour BEHAVIOUR
                 DEFINED AS
                 !BEGINPARSE
                 REFERENCE
                 !!This managed object class maps to the at group with object id {mib-2 3} in
                 RFC1213.!!;
                 DESCRIPTION
                 !!Note however that this group is deprecated by MIB-II. That is, it is being
                 included solely for compatibility with MIB-I nodes, and will most likely be
                 excluded from MIB-III nodes. From MIB-II and onwards, each network protocol
                 group contains its own address translation tables.

                 The Address Translation group contains one table which is the union across all
                 interfaces of the translation tables for converting a NetworkAddress (e.g., an IP
                 address) into a subnetwork-specific address. For lack of a better term, this
                 document refers to such a subnetwork-specific address as a `physical' address.

                 Examples of such translation tables are: for broadcast media where ARP is in
                 use, the translation table is equivalent to the ARP cache; or, on an X.25 network
                 where non-algorithmic translation to X.121 addresses is required, the translation
                 table contains the NetworkAddress to X.121 address equivalences.!!;
                 ENDPARSE!;;
       ATTRIBUTES
       atId GET;;;
REGISTERED AS  { iimcAutoObjAndAttr 1 3 6 1 2 1 3 };

atEntry  MANAGED OBJECT CLASS
   DERIVED FROM  "Rec. X.721 | ISO/IEC 10165-2:1992":top;
      CHARACTERIZED BY
          atEntryPkg PACKAGE
             BEHAVIOUR
                 atEntryPkgBehaviour BEHAVIOUR
                 DEFINED AS
                 !BEGINPARSE
                 REFERENCE
                 !!This managed object class maps to atEntry object with object id {atTable 1} in
                 RFC1213.!!;
                 DESCRIPTION
                 !!Each entry contains one NetworkAddress to `physical' address equivalence.
                 The delete value is the null string.!!;
                 INDEX  RFC1213-MIB.atIfIndex,
                           RFC1213-MIB.atNetAddress;
                 ENDPARSE!;;
```

```
        ATTRIBUTES
        atEntryId               GET,
        atIfIndex               GET,
        atPhysAddress           GET-REPLACE,
        atNetAddress            GET;;;
REGISTERED AS  { iimcAutoObjAndAttr 1 3 6 1 2 1 3 1 1 };

egp MANAGED OBJECT CLASS
          DERIVED FROM  "Rec. X.721 | ISO/IEC 10165-2:1992":top;
          CHARACTERIZED BY
            egpPkg PACKAGE
               BEHAVIOUR
                    egpPkgBehaviour BEHAVIOUR
                    DEFINED AS
                    !BEGINPARSE
                    REFERENCE
                    !!This managed object class maps to egp group with object id {mib-2 8} in RFC
                    1213.!!;
                    ENDPARSE!;;
          ATTRIBUTES
        egpId           GET,
        egpInMsgs       GET,
        egpInErrors     GET,
        egpOutMsgs      GET,
        egpOutErrors    GET,
        egpAs           GET;;;
REGISTERED AS  { iimcAutoObjAndAttr 1 3 6 1 2 1 8 };

egpNeighEntry MANAGED OBJECT CLASS
          DERIVED FROM  "Rec. X.721 | ISO/IEC 10165-2:1992":top;
          CHARACTERIZED BY
            egpNeighEntryPkg PACKAGE
               BEHAVIOUR
                    egpNeighEntryPkgBehaviour BEHAVIOUR
                    DEFINED AS
                    !BEGINPARSE
                    REFERENCE
                    !!This managed object class maps to egpNeighEntry object with object id
                    {egpNeighTable 1} in RFC 1213.!!;
                    DESCRIPTION
                    !!Information about this entity's relationship with a particular EGP neighbor.!!;
                    INDEX RFC1213-MIB.egpNeighAddr;
                    ENDPARSE!;;
          ATTRIBUTES
          egpNeighEntryId       GET,
          egpNeighState         GET,
          egpNeighAddr          GET,
          egpNeighAs            GET,
          egpNeighInMsgs        GET,
          egpNeighInErrs        GET,
          egpNeighOutMsgs       GET,
          egpNeighOutErrs       GET,
          egpNeighInErrMsgs     GET,
          egpNeighOutErrMsgs    GET,
```

```
        egpNeighStateUps        GET,
        egpNeighStateDowns      GET,
        egpNeighIntervalHello   GET,
        egpNeighIntervalPoll    GET,
        egpNeighMode            GET,
        egpNeighEventTrigger    GET-REPLACE;;;
REGISTERED AS  { iimcAutoObjAndAttr 1 3 6 1 2 1 8 5 1 };

icmp MANAGED OBJECT CLASS
        DERIVED FROM  "Rec. X.721 | ISO/IEC 10165-2:1992":top;
        CHARACTERIZED BY
            icmpPkg PACKAGE
                BEHAVIOUR
                icmpPkgBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This managed object class maps to the icmp group with object id {mib-2 5} in
                RFC 1213.!!;
                ENDPARSE!;;
        ATTRIBUTES
        icmpId                          GET,
        icmpInMsgs                      GET,
        icmpInErrors                    GET,
        icmpInDestUnreachs              GET,
        icmpInTimeExcds                 GET,
        icmpInParmProbs                 GET,
        icmpInSrcQuenchs                GET,
        icmpInRedirects                 GET,
        icmpInEchos                     GET,
        icmpInEchoReps                  GET,
        icmpInTimestamps                GET,
        icmpInTimestampReps             GET,
        icmpInAddrMasks                 GET,
        icmpInAddrMaskReps              GET,
        icmpOutMsgs                     GET,
        icmpOutErrors                   GET,
        icmpOutDestUnreachs             GET,
        icmpOutTimeExcds                GET,
        icmpOutParmProbs                GET,
        icmpOutSrcQuenchs               GET,
        icmpOutRedirects                GET,
        icmpOutEchos                    GET,
        icmpOutEchoReps                 GET,
        icmpOutTimestamps               GET,
        icmpOutTimestampReps            GET,
        icmpOutAddrMasks                GET,
        icmpOutAddrMaskReps             GET;;;
REGISTERED AS  { iimcAutoObjAndAttr 1 3 6 1 2 1 5 };

ifEntry   MANAGED OBJECT CLASS
        DERIVED FROM  "Rec. X.721 | ISO/IEC 10165-2:1992":top;
        CHARACTERIZED BY ifEntryPkg PACKAGE
        BEHAVIOUR
```

```
                ifEntryPkgBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This managed object class maps to the ifEntry object with object id {ifTable 1} in
                RFC 1213.!!;
                DESCRIPTION
                !!An interface entry containing objects at the subnetwork layer and below for a
                particular interface. The Interfaces table contains information on the entity's
                interfaces.  Each interface is thought of as being attached to a `subnetwork'.
                Note that this term should not be confused with `subnet' which refers to an
                addressing partitioning scheme used in the Internet suite of protocols.!!;
                INDEX RFC1213-MIB.ifIndex;
                ENDPARSE!;;
        ATTRIBUTES
        ifEntryId               GET,
        ifIndex                 GET,
        ifDescr                 GET,
        ifType                  GET,
        ifMtu                   GET,
        ifSpeed                 GET,
        ifPhysAddress           GET,
        ifAdminStatus           GET-REPLACE,
        ifOperStatus            GET,
        ifLastChange            GET,
        ifInOctets              GET,
        ifInUcastPkts           GET,
        ifInNUcastPkts          GET,
        ifInDiscards            GET,
        ifInErrors              GET,
        ifInUnknownProtos       GET,
        ifOutOctets             GET,
        ifOutUcastPkts          GET,
        ifOutNUcastPkts         GET,
        ifOutDiscards           GET,
        ifOutErrors             GET,
        ifOutQLen               GET,
        ifSpecific              GET;;;
REGISTERED AS  {iimcAutoObjAndAttr 1 3 6 1 2 1 2 2 1 };

interfaces MANAGED OBJECT CLASS
        DERIVED FROM  "Rec. X.721 | ISO/IEC 10165-2:1992":top;
        CHARACTERIZED BY interfacesPkg PACKAGE BEHAVIOUR
        interfacesPkgBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This managed object class maps to the interface group with object id {mib-2 2}
                in RFC 1213.!!;
                ENDPARSE!;;
        ATTRIBUTES
        interfacesId            GET,
        ifNumber                GET;;;
REGISTERED AS  { iimcAutoObjAndAttr 1 3 6 1 2 1 2 };
```

```
internetSystem MANAGED OBJECT CLASS
        DERIVED FROM "Rec. X.721 | ISO/IEC 10165-2:1992":top;
        CHARACTERIZED BY internetSystemPkg PACKAGE
        BEHAVIOUR
        internetSystemPkgBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This managed object class maps to the Internet system group with object id
                {mib-2 1} in RFC 1213.!!;
                DESCRIPTION
                !!If an agent is not configured to have a value for any of these variables, a string
                of length 0 is returned.

                When this object class is implemented in a managed system for use with the
                ISO/CCITT management protocol (CMIP), this object class shall emit the
                internetAlarm notification in place of SNMP traps/notifications which are reported
                using the unconfirmed service, and in place of InformRequests which are
                reported using the confirmed service.

                When this object class is implemented in an ISO/CCITT-Internet proxy, the
                internetAlarm shall be emitted upon receipt of SNMP traps/notifications which are
                reported using the unconfirmed service, and emitted upon receipt of
                InformRequests which are reported using the confirmed service.!!;
                ENDPARSE!;;
        ATTRIBUTES
        internetSystemId            GET,
        sysDescr                    GET,
        sysObjectID                 GET,
        sysUpTime                   GET,
        sysContact                  GET-REPLACE,
        sysName                     GET-REPLACE,
        sysLocation                 GET-REPLACE,
        sysServices                 GET;
        NOTIFICATIONS
        {iimcIIMCIMIBTRANS}:internetAlarm;;;
REGISTERED AS   {iimcAutoObjAndAttr 1 3 6 1 2 1 1};

ip MANAGED OBJECT CLASS
        DERIVED FROM "Rec. X.721 | ISO/IEC 10165-2:1992":top;
        CHARACTERIZED BY ipPkg PACKAGE
        BEHAVIOUR
        ipPkgBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This managed object class maps to the ip group with object id {mib-2 4} in RFC
                1213. It includes the ipForwardNumber attribute from RFC1354.!!;
                DESCRIPTION
                !!This object class extends the MIB-II ip group by including the ipForwardNumber
                attribute which is derived from the ipForwardNumber Internet object in
                RFC1354.!!;
                ENDPARSE!;;
```

```
        ATTRIBUTES
        ipId                        GET,
        ipForwarding                GET-REPLACE,
        ipDefaultTTL                GET-REPLACE,
        ipInReceives                GET,
        ipInHdrErrors               GET,
        ipInAddrErrors              GET,
        ipForwDatagrams             GET,
        ipInUnknownProtos           GET,
        ipInDiscards                GET,
        ipInDelivers                GET,
        ipOutRequests               GET,
        ipOutDiscards               GET,
        ipOutNoRoutes               GET,
        ipReasmTimeout              GET,
        ipReasmReqds                GET,
        ipReasmOKs                  GET,
        ipReasmFails                GET,
        ipFragOKs                   GET,
        ipFragFails                 GET,
        ipFragCreates               GET,
        ipRoutingDiscards           GET,
        ipForwardNumber             GET;;;
REGISTERED AS  { iimcAutoObjAndAttr 1 3 6 1 2 1 4};

ipAddrEntry MANAGED OBJECT CLASS
        DERIVED FROM "Rec. X.721 | ISO/IEC 10165-2:1992":top;
        CHARACTERIZED BY ipAddrEntryPkg PACKAGE
        BEHAVIOUR
        ipAddrEntryPkgBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This managed object class maps to the ipAddrEntry object with object id
                {ipAddrTable 1} in RFC 1213.!!;
                DESCRIPTION
                !!The addressing information for one of this entity's IP addresses.!!;
                INDEX RFC1213-MIB.ipAdEntAddr;
                ENDPARSE!;;
        ATTRIBUTES
        ipAddrEntryId               GET,
        ipAdEntAddr                 GET,
        ipAdEntIfIndex              GET,
        ipAdEntNetMask              GET,
        ipAdEntBcastAddr            GET,
        ipAdEntReasmMaxSize         GET;;;
REGISTERED AS  { iimcAutoObjAndAttr 1 3 6 1 2 1 4 20 1};

ipForwardEntry  MANAGED OBJECT CLASS
        DERIVED FROM "Rec. X.721 | ISO/IEC 10165-2:1992":top;
        CHARACTERIZED BY ipForwardEntryPkg PACKAGE
        BEHAVIOUR
        ipForwardEntryPkgBehaviour BEHAVIOUR
                DEFINED AS
```

```
                !BEGINPARSE
                REFERENCE
                !!This managed object class maps to the ipForwardEntry with object id
                {ipForwardTable 1} in RFC 1354.!!;
                DESCRIPTION
                !!A particular route to a particular destination, under a particular policy.!!;
                INDEX   RFC1354-MIB.ipForwardDest,
                        RFC1354-MIB.ipForwardProto,
                        RFC1354-MIB.ipForwardPolicy,
                        RFC1354-MIB.ipForwardNextHop;
                ENDPARSE!;;
        ATTRIBUTES
        ipForwardEntryId                GET,
        ipForwardDest                   GET,
        ipForwardMask                   DEFAULT VALUE
                                        IIMCRFC12131354ASN1.c-ipForwardMask
                                        GET-REPLACE,
        ipForwardPolicy                 GET,
        ipForwardNextHop                GET,
        ipForwardIfIndex                DEFAULT VALUE
                                        IIMCRFC12131354ASN1.c-ipForwardIfIndex
                                        GET-REPLACE,
        ipForwardType                   DEFAULT VALUE
                                        IIMCRFC12131354ASN1.c-ipForwardType
                                        GET-REPLACE,
        ipForwardProto                  GET,
        ipForwardAge                    DEFAULT VALUE
                                        IIMCRFC12131354ASN1.c-ipForwardAge
                                        GET,
        ipForwardInfo                   DEFAULT VALUE
                                        IIMCRFC12131354ASN1.c-ipForwardInfo
                                        GET-REPLACE,
        ipForwardNextHopAS              DEFAULT VALUE
                                        IIMCRFC12131354ASN1.c-ipForwardNextHopAS
                                        GET-REPLACE,
        ipForwardMetric1                DEFAULT VALUE
                                        IIMCRFC12131354ASN1.c-ipForwardMetric1
                                        GET-REPLACE,
        ipForwardMetric2                DEFAULT VALUE
                                        IIMCRFC12131354ASN1.c-ipForwardMetric2
                                        GET-REPLACE,
        ipForwardMetric3                DEFAULT VALUE
                                        IIMCRFC12131354ASN1.c-ipForwardMetric3
                                        GET-REPLACE,
        ipForwardMetric4                DEFAULT VALUE
                                        IIMCRFC12131354ASN1.c-ipForwardMetric4
                                        GET-REPLACE,
        ipForwardMetric5                DEFAULT VALUE
                                        IIMCRFC12131354ASN1.c-ipForwardMetric5
                                        GET-REPLACE;;;
REGISTERED AS  { iimcAutoObjAndAttr 1 3 6 1 2 1 4 24 2 1};

ipNetToMediaEntry       MANAGED OBJECT CLASS
        DERIVED FROM "Rec. X.721 | ISO/IEC 10165-2:1992":top;
```

```
        CHARACTERIZED BY ipNetToMediaEntryPkg PACKAGE
        BEHAVIOUR
                ipNetToMediaEntryPkgBehaviour BEHAVIOUR
                        DEFINED AS
                        !BEGINPARSE
                        REFERENCE
                        !!This managed object class maps to the ipNetToMediaEntry object with object id
                        {ipNetToMediaTable 1} in RFC 1213.!!;
                        DESCRIPTION
                        !!Each entry contains one IpAddress to `physical' address equivalence.!!;
                        INDEX  RFC1213-MIB.ipNetToMediaIfIndex,
                                RFC1213-MIB.ipNetToMediaNetAddress;
                        ENDPARSE!;;
        ATTRIBUTES
        ipNetToMediaEntryId             GET,
        ipNetToMediaIfIndex             GET,
        ipNetToMediaPhysAddress         GET-REPLACE,
        ipNetToMediaNetAddress          GET,
        ipNetToMediaType                GET-REPLACE;;;
REGISTERED AS  { iimcAutoObjAndAttr 1 3 6 1 2 1 4 22 1};

ipRouteEntry MANAGED OBJECT CLASS
        DERIVED FROM "Rec. X.721 | ISO/IEC 10165-2:1992":top;
        CHARACTERIZED BY ipRouteEntryPkg PACKAGE
        BEHAVIOUR ipRouteEntryPkgBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This managed object class maps to the ipRouteEntry object with object id
                {ipRouteTable 1} in RFC 1213.!!;
                DESCRIPTION
                !!A route to a particular destination.!!;
                INDEX RFC1213-MIB.ipRouteDest;
                ENDPARSE!;;
        ATTRIBUTES
        ipRouteEntryId                  GET,
        ipRouteDest                     GET,
        ipRouteIfIndex                  GET-REPLACE,
        ipRouteMetric1                  GET-REPLACE,
        ipRouteMetric2                  GET-REPLACE,
        ipRouteMetric3                  GET-REPLACE,
        ipRouteMetric4                  GET-REPLACE,
        ipRouteNextHop                  GET-REPLACE,
        ipRouteType                     GET-REPLACE,
        ipRouteProto                    GET,
        ipRouteAge                      GET-REPLACE,
        ipRouteMask                     GET-REPLACE,
        ipRouteMetric5                  GET-REPLACE,
        ipRouteInfo                     GET;;;
REGISTERED AS  { iimcAutoObjAndAttr 1 3 6 1 2 1 4 21 1};

snmp MANAGED OBJECT CLASS
        DERIVED FROM "Rec. X.721 | ISO/IEC 10165-2:1992":top;
        CHARACTERIZED BY
```

```
        snmpPkg PACKAGE
        BEHAVIOUR snmpPkgBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This managed object class maps to the snmp group with object id {mib-2 11} in
                RFC 1213.!!;
                DESCRIPTION
                !!Some of the attributes defined below will be zero-valued in those SNMP
                implementations that are optimized to support only those functions specific to
                either a management agent or a management station. In particular, it should be
                observed that the attributes below refer to an SNMP entity, and there may be
                several SNMP entities residing on a managed node (e.g., if the node is hosting
                acting as a management station).!!;
                ENDPARSE!;;
        ATTRIBUTES
        snmpId                          GET,
        snmpInPkts                      GET,
        snmpOutPkts                     GET,
        snmpInBadVersions               GET,
        snmpInBadCommunityNames         GET,
        snmpInBadCommunityUses          GET,
        snmpInASNParseErrs              GET,
        snmpInTooBigs                   GET,
        snmpInNoSuchNames               GET,
        snmpInBadValues                 GET,
        snmpInReadOnlys                 GET,
        snmpInGenErrs                   GET,
        snmpInTotalReqVars              GET,
        snmpInTotalSetVars              GET,
        snmpInGetRequests               GET,
        snmpInGetNexts                  GET,
        snmpInSetRequests               GET,
        snmpInGetResponses              GET,
        snmpInTraps                     GET,
        snmpOutTooBigs                  GET,
        snmpOutNoSuchNames              GET,
        snmpOutBadValues                GET,
        snmpOutGenErrs                  GET,
        snmpOutGetRequests              GET,
        snmpOutGetNexts                 GET,
        snmpOutSetRequests              GET,
        snmpOutGetResponses             GET,
        snmpOutTraps                    GET,
        snmpEnableAuthenTraps           GET-REPLACE;;;
REGISTERED AS  {iimcAutoObjAndAttr 1 3 6 1 2 1 11};

tcp MANAGED OBJECT CLASS
        DERIVED FROM "Rec. X.721 | ISO/IEC 10165-2:1992":top;
        CHARACTERIZED BY
        tcpPkg PACKAGE
        BEHAVIOUR
        tcpPkgBehaviour BEHAVIOUR
                DEFINED AS
```

```
                !BEGINPARSE
                REFERENCE
                !!This managed object class maps to the tcp group with object id {mib-2 6} in
                RFC 1213.!!;
                DESCRIPTION
                !!Note that instances that represent information about a particular TCP
                connection are transient; they persist only as long as the connection in
                question.!!;
                ENDPARSE!;;
        ATTRIBUTES
        tcpId                   GET,
        tcpRtoAlgorithm         GET,
        tcpRtoMin               GET,
        tcpRtoMax               GET,
        tcpMaxConn              GET,
        tcpActiveOpens          GET,
        tcpPassiveOpens         GET,
        tcpAttemptFails         GET,
        tcpEstabResets          GET,
        tcpCurrEstab            GET,
        tcpInSegs               GET,
        tcpOutSegs              GET,
        tcpRetransSegs          GET,
        tcpInErrs               GET,
        tcpOutRsts              GET;;;
REGISTERED AS { iimcAutoObjAndAttr 1 3 6 1 2 1 6 };

tcpConnEntry MANAGED OBJECT CLASS
        DERIVED FROM "Rec. X.721 | ISO/IEC 10165-2:1992":top;
        CHARACTERIZED BY tcpConnEntryPkg PACKAGE
        BEHAVIOUR
        tcpConnEntryPkgBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This managed object class maps to the tcpConnEntry object with object id
                {tcpConnTable 1} in RFC 1213.!!;
                DESCRIPTION
                !!Information about a particular current TCP connection. An object of this type is
                transient, in that it ceases to exist when (or soon after) the connection makes the
                transition to the CLOSED state.!!;
                INDEX  RFC1213-MIB.tcpConnLocalAddress,
                        RFC1213-MIB.tcpConnLocalPort,
                        RFC1213-MIB.tcpConnRemAddress,
                        RFC1213-MIB.tcpConnRemPort;
                ENDPARSE!;;
        ATTRIBUTES
        tcpConnEntryId          GET,
        tcpConnState            GET-REPLACE,
        tcpConnLocalAddress     GET,
        tcpConnLocalPort        GET,
        tcpConnRemAddress       GET,
        tcpConnRemPort          GET;;;
REGISTERED AS { iimcAutoObjAndAttr 1 3 6 1 2 1 6 13 1};
```

```
udp MANAGED OBJECT CLASS
        DERIVED FROM "Rec. X.721 | ISO/IEC 10165-2:1992":top;
        CHARACTERIZED BY udpPkg PACKAGE
        BEHAVIOUR
        udpPkgBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This managed object class maps to the udp group with object id {mib-2 7} in
                RFC 1213.!!;
                ENDPARSE!;;
        ATTRIBUTES
        udpId                           GET,
        udpInDatagrams                  GET,
        udpNoPorts                      GET,
        udpInErrors                     GET,
        udpOutDatagrams                 GET;;;
REGISTERED AS  { iimcAutoObjAndAttr 1 3 6 1 2 1 7};

udpEntry MANAGED OBJECT CLASS
        DERIVED FROM "Rec. X.721 | ISO/IEC 10165-2:1992":top;
        CHARACTERIZED BY udpEntryPkg PACKAGE
        BEHAVIOUR
        udpEntryPkgBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This managed object class maps to the udpEntry object with object id
                {udpTable 1} in RFC 1213.!!;
                DESCRIPTION
                !!Information about a particular current UDP listener. The UDP listener table
                contains information about this entity's UDP end-points on which a local
                application is currently accepting datagrams.!!;
                INDEX  RFC1213-MIB.udpLocalAddress,
                        RFC1213-MIB.udpLocalPort;
                ENDPARSE!;;
        ATTRIBUTES
        udpEntryId                              GET,
        udpLocalAddress                         GET,
        udpLocalPort                            GET;;;
REGISTERED AS { iimcAutoObjAndAttr 1 3 6 1 2 1 7 5 1};
```

-- 2.1.2 IIMCMIB-II Attributes

```
atEntryId ATTRIBUTE
        WITH ATTRIBUTE SYNTAX  IIMCRFC12131354ASN1.AtEntryIdValue;
        MATCHES FOR     EQUALITY;
        BEHAVIOUR
                atEntryIdBehaviour BEHAVIOUR
                DEFINED AS
                !The naming attribute for object class atEntry.!;;
```

```
REGISTERED AS {iimcAutoName 1 3 6 1 2 1 3 1 1};

atId ATTRIBUTE
        WITH ATTRIBUTE SYNTAX  IIMCRFC12131354ASN1.AtIdValue;
        MATCHES FOR      EQUALITY;
        BEHAVIOUR
                atIdBehaviour BEHAVIOUR
                DEFINED AS
                !The naming attribute for object class at.!;;
REGISTERED AS {iimcAutoName 1 3 6 1 2 1 3};

atIfIndex ATTRIBUTE
        WITH ATTRIBUTE SYNTAX  IIMCRFC12131354ASN1.Integer;
        MATCHES FOR      EQUALITY, ORDERING;
        BEHAVIOUR
                atIfIndexBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to atIfIndex with object id {atEntry 1} in RFC1213.;!!
                DESCRIPTION
                !!The interface on which this entry's equivalence is effective. The interface
                identified by a particular value of this index is the same interface as identified by
                the same value of ifIndex.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 3  1 1 1};

atNetAddress ATTRIBUTE
        DERIVED FROM  {iimcIIMCIMIBTRANS}:ipAddress;
        BEHAVIOUR
                atNetAddressBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to atNetAddress with object id {atEntry 3} in RFC1213.!!;
                DESCRIPTION
                !!The NetworkAddress (e.g., the IP address) corresponding to the media-
                dependent `physical' address.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 3  1 1 3};

atPhysAddress ATTRIBUTE
        DERIVED FROM  {iimcIIMCIMIBTRANS}:physAddress;
        BEHAVIOUR
                atPhysAddressBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to atPhysAddress with object id {atEntry 2} in RFC1213.!!;
                DESCRIPTION
                !!The media-dependent `physical' address. Setting this attribute to a null string
                (one of zero length) has the effect of invalidating the corresponding atEntry. That
                is, it effectively disassociates the interface identified with said entry from the
                mapping identified with said entry. It is an implementation-specific matter as to
```

```
                whether the agent removes an invalidated entry from the table. Accordingly,
                management stations must be prepared to receive tabular information from
                agents that corresponds to entries not currently in use. Proper interpretation of
                such entries requires examination of the relevant atPhysAddress attribute.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 3  1 1 2};

egpAs   ATTRIBUTE
        WITH ATTRIBUTE SYNTAX  IIMCRFC12131354ASN1.Integer;
        MATCHES FOR      EQUALITY, ORDERING;
        BEHAVIOUR
                egpAsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to egpAs with object id {egp 6} in RFC1213.!!;
                DESCRIPTION
                !!The autonomous system number of this EGP entity.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 8 6};

egpId ATTRIBUTE
        WITH ATTRIBUTE SYNTAX  IIMCRFC12131354ASN1.EgpIdValue;
        MATCHES FOR      EQUALITY;
        BEHAVIOUR
                egpIdBehaviour BEHAVIOUR
                DEFINED AS
                !The naming attribute for object class egp.!;;
REGISTERED AS {iimcAutoName 1 3 6 1 2 1 8};

egpInErrors ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS}:counter32;
        BEHAVIOUR
                egpInErrorsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to egpInErrors with object id {egp 2} in RFC1213.!!;
                DESCRIPTION
                !!The number of EGP messages received that proved to be in error.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 8 2};

egpInMsgs  ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                egpInMsgsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to egpInMsgs with object id {egp 1} in RFC1213.!!;
                DESCRIPTION
                !!The number of EGP messages received without error.!!;
                ENDPARSE!;;
```

```
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 8 1};

egpNeighAddr    ATTRIBUTE
        DERIVED FROM  {iimcIIMCIMIBTRANS}:ipAddress;
        BEHAVIOUR
                egpNeighAddrBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to egpNeighAddr with object id {egpNeighEntry 2} in
                RFC1213.!!;
                DESCRIPTION
                !!The IP address of this entry's EGP neighbor.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 8 5 1 2};

egpNeighAs      ATTRIBUTE
        WITH ATTRIBUTE SYNTAX  IIMCRFC12131354ASN1.Integer;
        MATCHES FOR      EQUALITY, ORDERING;
        BEHAVIOUR
                egpNeighAsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to egpNeighAs with object id {egpNeighEntry 3} in
                RFC1213.!!;
                DESCRIPTION
                !!The autonomous system of this EGP peer. Zero should be specified if the
                autonomous system number of the neighbor is not yet known.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 8 5 1 3};

egpNeighEntryId ATTRIBUTE
        WITH ATTRIBUTE SYNTAX IIMCRFC12131354ASN1.EgpNeighEntryIdValue;
        MATCHES FOR      EQUALITY;
        BEHAVIOUR
                egpNeighEntryIdBehaviour BEHAVIOUR
                DEFINED AS
                !The naming attribute for object class egpNeighEntry.!;;
REGISTERED AS {iimcAutoName 1 3 6 1 2 1 8 5 1};

egpNeighEventTrigger    ATTRIBUTE
        WITH ATTRIBUTE SYNTAX IIMCRFC12131354ASN1.EgpNeighEventTrigger;
        MATCHES FOR      EQUALITY, ORDERING;
        BEHAVIOUR
                egpNeighEventTriggerBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to egpNeighEventTrigger with object id {egpNeighEntry 15}
                in RFC1213.!!;
                DESCRIPTION
                !!A control variable used to trigger operator- initiated Start and Stop events.
                When read, this variable always returns the most recent value that
```

```
                egpNeighEventTrigger was set to. If it has not been set since the last
                initialization of the network management subsystem on the node, it returns a
                value of `stop'.

                When set, this variable causes a Start or Stop event on the specified neighbor,
                as specified on pages 8-10 of RFC 904. Briefly, a Start event causes an Idle
                peer to begin neighbor acquisition and a non-Idle peer to reinitiate neighbor
                acquisition. A stop event causes a non-Idle peer to return to the Idle state until a
                Start event occurs, either via egpNeighEventTrigger or otherwise.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 8 5 1 15};

egpNeighInErrMsgs       ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                egpNeighInErrMsgsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to egpNeighInErrMsgs with object id {egpNeighEntry 8} in
                RFC1213.!!;
                DESCRIPTION
                !!The number of EGP-defined error messages received from this EGP peer.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 8 5 1 8};

egpNeighInErrs  ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                egpNeighInErrsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to egpNeighInErrs with object id {egpNeighEntry 5} in
                RFC1213.!!;
                DESCRIPTION
                !!The number of EGP messages received from this EGP peer that proved to be
                in error (e.g., bad EGP checksum).!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 8 5 1 5};

egpNeighInMsgs  ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                egpNeighInMsgsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to egpNeighInMsgs with object id {egpNeighEntry 4} in
                RFC1213.!!;
                DESCRIPTION
                !!The number of EGP messages received without error from this EGP peer.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 8 5 1 4};
```

```
egpNeighIntervalHello   ATTRIBUTE
        WITH ATTRIBUTE SYNTAX  IIMCRFC12131354ASN1.Integer;
        MATCHES FOR     EQUALITY, ORDERING;
        BEHAVIOUR
                egpNeighIntervalHelloBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to the egpNeighIntervalHello with object id {egpNeighEntry
                12} in RFC1213.!!;
                DESCRIPTION
                !!The interval between EGP Hello command retransmissions (in hundredths of a
                second). This represents the t1 timer as defined in RFC 904.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 8 5 1 12};

egpNeighIntervalPoll    ATTRIBUTE
        WITH ATTRIBUTE SYNTAX  IIMCRFC12131354ASN1.Integer;
        MATCHES FOR     EQUALITY, ORDERING;
        BEHAVIOUR
                egpNeighIntervalPollBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to egpNeighIntervalPoll with object id {egpNeighEntry 13} in
                RFC1213.!!;
                DESCRIPTION
                !!The interval between EGP poll command retransmissions (in hundredths of a
                second). This represents the t3 timer as defined in RFC 904.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 8 5 1 13};

egpNeighMode    ATTRIBUTE
        WITH ATTRIBUTE SYNTAX  IIMCRFC12131354ASN1.EgpNeighMode;
        MATCHES FOR     EQUALITY, ORDERING;
        BEHAVIOUR
                egpNeighModeBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE !!This attribute maps to egpNeighMode with object id
                {egpNeighEntry 14} in RFC1213.!!;
                DESCRIPTION
                !!The polling mode of this EGP entity, either passive or active.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 8 5 1 14};

egpNeighOutErrMsgs      ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                egpNeighOutErrMsgsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
```

```
                !!This attribute maps to egpNeighOutErrMsgs with object id {egpNeighEntry 9} in
                RFC1213.!!;
                DESCRIPTION
                !!The number of EGP-defined error messages sent to this EGP peer.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 8 5 1 9};

egpNeighOutErrs ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                egpNeighOutErrsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to egpNeighOutErrs with object id {egpNeighEntry 7} in
                RFC1213.!!;
                DESCRIPTION
                !!The number of locally generated EGP messages not sent to this EGP peer due
                to resource limitations within an EGP entity.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 8 5 1 7};

egpNeighOutMsgs ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                egpNeighOutMsgsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to egpNeighOutMsgs with object id {egpNeighEntry 6} in
                RFC1213.!!;
                DESCRIPTION
                !!The number of locally generated EGP messages to this EGP peer.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 8 5 1 6};

egpNeighState ATTRIBUTE
        WITH ATTRIBUTE SYNTAX IIMCRFC12131354ASN1.EgpNeighState;
        MATCHES FOR     EQUALITY, ORDERING;
        BEHAVIOUR
                egpNeighStateBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to egpNeighState
                with object id {egpNeighEntry 1} in RFC1213.!!;
                DESCRIPTION
                !!The EGP state of the local system with respect to this entry's EGP neighbor.
                Each EGP state is represented by a value that is one greater than the numerical
                value associated with said state in RFC 904.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 8 5 1 1};

egpNeighStateDowns      ATTRIBUTE
```

```
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                egpNeighStateDownsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to egpNeighStateDowns with object id {egpNeighEntry 11}
                in RFC1213.!!;
                DESCRIPTION
                !!The number of EGP state transitions from the UP state to any other state with
                this EGP peer.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 8 5 1 11};

egpNeighStateUps        ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                egpNeighStateUpsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE !!This attribute maps to egpNeighStateUps with object id
                {egpNeighEntry 10} in RFC1213.!!;
                DESCRIPTION
                !!The number of EGP state transitions to the UP state with this EGP peer.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 8 5 1 10};

egpOutErrors ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                egpOutErrorsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE !!This attribute maps to egpOutErrors with object id {egp 4} in
                RFC1213.!!;
                DESCRIPTION
                !!The number of locally generated EGP messages not sent due to resource
                limitations within an EGP entity.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 8 4};

egpOutMsgs  ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                egpOutMsgsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to egpOutMsgs with object id {egp 3} in RFC1213.!!;
                DESCRIPTION
                !!The total number of locally generated EGP messages.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 8 3};
```

```
icmpId ATTRIBUTE
        WITH ATTRIBUTE SYNTAX  IIMCRFC12131354ASN1.IcmpIdValue;
        MATCHES FOR      EQUALITY;
        BEHAVIOUR
                icmpIdBehaviour BEHAVIOUR
                DEFINED AS
                !The naming attribute for object class icmp.!;;
REGISTERED AS {iimcAutoName 1 3 6 1 2 1 5};

icmpInAddrMaskReps ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                icmpInAddrMaskRepsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to icmpInAddrMaskReps with object id {icmp 13} in
                RFC1213.!!;
                DESCRIPTION
                !!The number of ICMP Address Mask Reply messages received.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 5 13};

icmpInAddrMasks ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                icmpInAddrMasksBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to icmpInAddrMasks with object id {icmp 12} in RFC1213.!!;
                DESCRIPTION
                !!The number of ICMP Address Mask Request messages received.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 5 12};

icmpInDestUnreachs ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                icmpInDestUnreachsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to icmpInDestUnreachs with object id {icmp 3} in
                RFC1213.!!;
                DESCRIPTION
                !!The number of ICMP Destination Unreachable messages received.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 5 3};

icmpInEchoReps ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                icmpInEchoRepsBehaviour BEHAVIOUR
```

```
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to icmpInEchoReps with object id {icmp 9} in RFC1213.!!;
                DESCRIPTION
                !!The number of ICMP Echo Reply messages received.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 5 9};

icmpInEchos  ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                icmpInEchosBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to icmpInEchos with object
                id {icmp 8} in RFC 1213.!!;
                DESCRIPTION
                !!The number of ICMP Echo (request) messages received.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 5 8};

icmpInErrors ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                icmpInErrorsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to icmpInErrors with object id {icmp 2} in RFC1213.!!;
                DESCRIPTION
                !!The number of ICMP messages which the entity received but determined as
                having ICMP-specific errors (bad ICMP checksums, bad length, etc.).!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 5 2};

icmpInMsgs ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                icmpInMsgsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to icmpInMsgs with object id {icmp 1} in RFC1213.!!;
                DESCRIPTION
                !!The total number of ICMP messages which the entity received. Note that this
                counter includes all those counted by icmpInErrors.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 5 1};

icmpInParmProbs ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
```

```
                icmpInParmProbsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to icmpInParmProbs with object id {icmp 5} in RFC1213.!!;
                DESCRIPTION
                !!The number of ICMP Parameter Problem messages received.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 5 5};

icmpInRedirects ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                icmpInRedirectsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to icmpInRedirects with id
                {icmp 7} in RFC1213.!!;
                DESCRIPTION
                !!The number of ICMP Redirect messages received.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 5 7};

icmpInSrcQuenchs ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                icmpInSrcQuenchsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to icmpInSrcQuenchs with object id {icmp 6} in RFC1213.!!;
                DESCRIPTION
                !!The number of ICMP Source Quench messages received.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 5 6};

icmpInTimeExcds ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                icmpInTimeExcdsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to icmpInTimeExcds with object id {icmp 4} in RFC1213.!!;
                DESCRIPTION
                !!The number of ICMP Time Exceeded messages received.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 5 4};

icmpInTimestampReps ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                icmpInTimestampRepsBehaviour BEHAVIOUR
```

```
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to icmpInTimestampReps with object id {icmp 11} in
                RFC1213.!!;
                DESCRIPTION
                !!The number of ICMP Timestamp Reply messages received.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 5 11};

icmpInTimestamps ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                icmpInTimeStampsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to icmpInTimestamps with object id {icmp 10} in
                RFC1213.!!;
                DESCRIPTION
                !!The number of ICMP Timestamp (request) messages received.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 5 10};

icmpOutAddrMaskReps ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                icmpOutAddrMaskRepsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to icmpOutAddrMaskReps with object id {icmp 26} in
                RFC1213.!!;
                DESCRIPTION
                !!The number of ICMP Timestamp (request) messages received. The number of
                ICMP Address Mask Reply messages sent.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 5 26};

icmpOutAddrMasks ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                icmpOutAddrMasksBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute map to icmpOutAddrMasks with object id {icmp 25} in
                RFC1213.!!;
                DESCRIPTION
                !!The number of ICMP Address Mask Request messages sent.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 5 25};

icmpOutDestUnreachs ATTRIBUTE
```

```
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                icmpOutDestUnreachsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to icmpOutDestUnreachs with object id {icmp 16} in
                RFC1213.!!;
                DESCRIPTION
                !!The number of ICMP Destination Unreachable messages sent.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 5 16};

icmpOutEchoReps  ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                icmpOutEchoRepsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to icmpOutEchoReps with object id {icmp 22} in
                RFC1213.!!;
                DESCRIPTION
                !!The number of ICMP Echo Reply messages sent.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 5 22};

icmpOutEchos ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                icmpOutEchosBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to icmpOutEchos with object id {icmp 21} in RFC1213.!!;
                DESCRIPTION
                !!The number of ICMP Echo (request) messages sent.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 5 21};

icmpOutErrors ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                icmpOutErrorsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to icmpOutErrors with object id {icmp 15} in RFC1213.!!;
                DESCRIPTION
                !!The number of ICMP messages which this entity did not send due to problems
                discovered within ICMP such as a lack of buffers. This value should not include
                errors discovered outside the ICMP layer such as the inability of IP to route the
                resultant datagram. In some implementations there may be no types of error
                which contribute to this counter's value.!!;
```

```
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 5 15};

icmpOutMsgs ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                icmpOutMsgsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to icmpOutMsgs with object id {icmp 14} in RFC1213.!!;
                DESCRIPTION
                !!The total number of ICMP messages which this entity attempted to send. Note
                that this counter includes all those counted by icmpOutErrors.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 5 14};

icmpOutParmProbs ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                icmpOutParmProbsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to icmpOutParmProbs with object id{icmp 18} in
                RFC1213.!!;
                DESCRIPTION
                !!The number of ICMP Parameter Problem messages sent.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 5 18};

icmpOutRedirects ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                icmpOutRedirectsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to icmpOutRedirects with object id {icmp 20} in RFC1213.!!;
                DESCRIPTION
                !!The number of ICMP Redirect messages sent. For a host, this attribute will
                always be zero, since hosts do not send redirects.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 5 20};

icmpOutSrcQuenchs ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                icmpOutSrcQuenchsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to icmpOutSrcQuenchs with object id {icmp 19} in
                RFC1213.!!;
```

```
                DESCRIPTION
                !!The number of ICMP Source Quench messages sent.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 5 19};

icmpOutTimeExcds ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                icmpOutTimeExcdsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to icmpOutTimeExcds with object id {icmp 17} in
                RFC1213.!!;
                DESCRIPTION
                !!The number of ICMP Time Exceeded messages sent.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 5 17};

icmpOutTimestampReps ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                icmpOutTimestampRepsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to icmpOutTimestampReps with object id {icmp 24} in
                RFC1213.!!;
                DESCRIPTION
                !!The number of ICMP Timestamp Reply messages sent.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 5 24};

icmpOutTimestamps ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                icmpOutTimestampsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to icmpOutTimestamps with object id {icmp 23} in
                RFC1213.!!;
                DESCRIPTION
                !!The number of ICMP Timestamp (request) messages sent.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 5 23};

ifAdminStatus ATTRIBUTE
        WITH ATTRIBUTE SYNTAX
                IIMCRFC12131354ASN1.IfAdminStatus;
        MATCHES FOR     EQUALITY, ORDERING;
        BEHAVIOUR
                ifAdminStatusBehaviour BEHAVIOUR
                DEFINED AS
```

```
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ifAdminStatus with object id {ifEntry 7} in RFC1213.!!;
                DESCRIPTION
                !!The desired state of the interface. The testing(3) state indicates that no
                operational packets can be passed.!!;
                ENDPARSE!;;
REGISTERED AS { iimcAutoObjAndAttr 1 3 6 1 2 1 2 2 1 7};

ifDescr ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS}:displayString;
        BEHAVIOUR
                ifDescrBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ifDescr with object id {ifEntry 2} in RFC 1213.!!;
                DESCRIPTION
                !!A textual string containing information about the interface. This string should
                include the name of the manufacturer, the product name and the version of the
                hardware interface.!!;
                ENDPARSE!;;
REGISTERED AS { iimcAutoObjAndAttr 1 3 6 1 2 1 2 2 1 2};

ifEntryId ATTRIBUTE
        WITH ATTRIBUTE SYNTAX IIMCRFC12131354ASN1.IfEntryIdValue;
        MATCHES FOR     EQUALITY;
        BEHAVIOUR
                ifEntryIdBehaviour BEHAVIOUR
                DEFINED AS
                !The naming attribute for object class ifEntry.!;;
REGISTERED AS {iimcAutoName 1 3 6 1 2 1 2 2 1};

ifIndex   ATTRIBUTE
        WITH ATTRIBUTE SYNTAX  IIMCRFC12131354ASN1.Integer;
        MATCHES FOR     EQUALITY, ORDERING;
        BEHAVIOUR
                ifIndexBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ifIndex with object id {ifEntry 1} in RFC 1213.!!;
                DESCRIPTION
                !!A unique value for each interface. Its value ranges between 1 and the value of
                ifNumber. The value for each interface must remain constant at least from one
                re-initialization of the entity's network management system to the next re-
                initialization.!!;
                ENDPARSE!;;
REGISTERED AS { iimcAutoObjAndAttr 1 3 6 1 2 1 2 2 1 1};

ifInDiscards ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                ifInDiscardsBehaviour BEHAVIOUR
```

```
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ifInDiscards with object id {ifEntry 13} in RFC1213.!!;
                DESCRIPTION
                !!The number of inbound packets which were chosen to be discarded even
                though no errors had been detected to prevent their being deliverable to a
                higher-layer protocol. One possible reason for discarding such a packet could be
                to free up buffer space.!!;
                ENDPARSE!;;
REGISTERED AS { iimcAutoObjAndAttr 1 3 6 1 2 1 2 2 1 13};

ifInErrors ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                ifInErrorsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ifInErrors with object id {ifEntry 14} in RFC1213.!!;
                DESCRIPTION
                !!The number of inbound packets that contained errors preventing them from
                being deliverable to a higher-layer protocol.!!;
                ENDPARSE!;;
REGISTERED AS { iimcAutoObjAndAttr 1 3 6 1 2 1 2 2 1 14};

ifInNUcastPkts ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                ifInNUcastPktsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ifInNUcastPkts with object id {ifEntry 12} in RFC1213.!!;
                DESCRIPTION
                !!The number of non-unicast (i.e., subnetwork- broadcast or subnetwork-
                multicast) packets delivered to a higher-layer protocol.!!;
                ENDPARSE!;;
REGISTERED AS { iimcAutoObjAndAttr 1 3 6 1 2 1 2 2 1 12};

ifInOctets ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                ifInOctetsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ifInOctets with object id {ifEntry 10} in RFC1213.!!;
                DESCRIPTION
                !!The total number of octets received on the interface, including framing
                characters.!!;
                ENDPARSE!;;
REGISTERED AS { iimcAutoObjAndAttr 1 3 6 1 2 1 2 2 1 10};
```

```
ifInUcastPkts ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                ifInUcastPktsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ifInUcastPkts with object id {ifEntry 11} in RFC1213.!!;
                DESCRIPTION
                !!The number of subnetwork-unicast packets delivered to a higher-layer
                protocol.!!;
                ENDPARSE!;;
REGISTERED AS { iimcAutoObjAndAttr 1 3 6 1 2 1 2 2 1 11};

ifInUnknownProtos ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                ifInUnknownProtosBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ifInUnknownProtos with object id {if Entry 15} in
                RFC1213.!!;
                DESCRIPTION
                !!The number of packets received via the interface which were discarded
                because of an unknown or unsupported protocol.!!;
                ENDPARSE!;;
REGISTERED AS { iimcAutoObjAndAttr 1 3 6 1 2 1 2 2 1 15};

ifLastChange ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS}: timeTicks;
        BEHAVIOUR
                ifLastChangeBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ifLastChange with object id {ifEntry 9} in RFC1213.!!;
                DESCRIPTION
                !!The value of sysUpTime at the time the interface entered its current operational
                state. If the current state was entered prior to the last re- initialization of the local
                network management subsystem, then this attribute contains a zero value.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 2 2 1 9};

ifMtu ATTRIBUTE
        WITH ATTRIBUTE SYNTAX  IIMCRFC12131354ASN1.Integer;
        MATCHES FOR      EQUALITY, ORDERING;
        BEHAVIOUR
                ifMtuBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ifMtu with object id {ifEntry 4} in RFC1213.!!;
                DESCRIPTION
```

```
                !!The size of the largest datagram which can be sent/received on the interface,
                specified in octets. For interfaces that are used for transmitting network
                datagrams, this is the size of the largest network datagram that can be sent on
                the interface.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 2 2 1 4};

ifNumber  ATTRIBUTE
        WITH ATTRIBUTE SYNTAX  IIMCRFC12131354ASN1.Integer;
        MATCHES FOR      EQUALITY, ORDERING;
        BEHAVIOUR
                ifNumberBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ifNumber with object id {interfaces 1} in RFC1213.!!;
                DESCRIPTION
                !!The number of network interfaces (regardless of their current state) present on
                this system.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 2 1};

ifOperStatus ATTRIBUTE
        WITH ATTRIBUTE SYNTAX  IIMCRFC12131354ASN1.IfOperStatus;
        MATCHES FOR      EQUALITY, ORDERING;
        BEHAVIOUR
                ifOperStatusBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ifOperStatus with object id {ifEntry 8} in RFC1213.!!;
                DESCRIPTION
                !!The current operational state of the interface. The testing(3) state indicates that
                no operational packets can be passed.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 2 2 1 8};

ifOutDiscards ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                ifOutDiscardsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ifOutDiscards with object id {ifEntry 19} in RFC1213.!!;
                DESCRIPTION
                !!The number of outbound packets which were chosen to be discarded even
                though no errors had been detected to prevent their being transmitted. One
                possible reason for discarding such a packet could be to free up buffer space.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 2 2 1 19};

ifOutErrors ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
```

```
        BEHAVIOUR
                ifOutErrorsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ifOutErrors with object id {ifEntry 20} in RFC1213.!!;
                DESCRIPTION
                !!The number of outbound packets that could not be transmitted because of
                errors.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 2 2 1 20};

ifOutNUcastPkts ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                ifOutNUcastPktsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ifOutNUcastPkts with object id {ifEntry 18} in RFC1213.!!;
                DESCRIPTION
                !!The total number of packets that higher-level protocols requested be
                transmitted to a non- unicast (i.e., a subnetwork-broadcast or subnetwork-
                multicast) address, including those that were discarded or not sent.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 2 2 1 18};

ifOutOctets ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                ifOutOctetsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ifOutOctets with object id {ifEntry 16} in RFC1213.!!;
                DESCRIPTION
                !!The total number of octets transmitted out of the interface, including framing
                characters.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 2 2 1 16};

ifOutQLen ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS}: gauge32;
        BEHAVIOUR
                ifOutQLenBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ifOutQLen with object id {ifEntry 21} in RFC1213.!!;
                DESCRIPTION
                !!The length of the output packet queue (in packets).!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 2 2 1 21};
```

```
ifOutUcastPkts ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                ifOutUcastPktsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ifOutUcastPkts with object id {ifEntry 17} in RFC1213.!!;
                DESCRIPTION
                !!The total number of packets that higher-level protocols requested be
                transmitted to a subnetwork-unicast address, including those that were discarded
                or not sent.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 2 2 1 17};

ifPhysAddress ATTRIBUTE
        DERIVED FROM  {iimcIIMCIMIBTRANS}:physAddress;
        BEHAVIOUR
                ifPhysAddressBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ifPhysAddress with object id {ifEntry 6} in RFC 1213.!!;
                DESCRIPTION
                !!The interface's address at the protocol layer immediately `below' the network
                layer in the protocol stack. For interfaces which do not have such an address
                (e.g., a serial line), this attribute should contain an octet string of zero length.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 2 2 1 6};

ifSpecific ATTRIBUTE
        WITH ATTRIBUTE SYNTAX IIMCRFC12131354ASN1.ObjectIdentifier;
        MATCHES FOR     EQUALITY, ORDERING;
        BEHAVIOUR
                ifSpecificBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ifSpecific with object id {ifEntry 22} in RFC1213.!!;
                DESCRIPTION
                !!A reference to MIB definitions specific to the particular media being used to
                realize the interface. For example, if the interface is realized by an ethernet, then
                the value of this attribute refers to a document defining attributes specific to
                ethernet. If this information is not present, its value should be set to the OBJECT
                IDENTIFIER { 0 0 }, which is a syntactically valid object identifier, and any
                conformant implementation of ASN.1 and BER must be able to generate and
                recognize this value.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 2 2 1 22};

ifSpeed ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS}:gauge32;
        BEHAVIOUR
                ifSpeedBehaviour BEHAVIOUR
```

```
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ifSpeed with object id {ifEntry 5} in RFC 1213.!!;
                DESCRIPTION
                !!An estimate of the interface's current bandwidth in bits per second. For
                interfaces which do not vary in bandwidth or for those where no accurate
                estimation can be made, this attribute should contain the nominal bandwidth.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 2 2 1 5};

ifType ATTRIBUTE
        WITH ATTRIBUTE SYNTAX  IIMCRFC12131354ASN1.IfType;
        MATCHES FOR     EQUALITY, ORDERING;
        BEHAVIOUR
                ifTypeBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ifType with object id {ifEntry 3} in RFC1213.!!;
                DESCRIPTION
                !!The type of interface, distinguished according to the physical/link protocol(s)
                immediately `below' the network layer in the protocol stack.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 2 2 1 3};

interfacesId ATTRIBUTE
        WITH ATTRIBUTE SYNTAX IIMCRFC12131354ASN1.InterfacesIdValue;
        MATCHES FOR     EQUALITY;
        BEHAVIOUR
                interfacesIdBehaviour BEHAVIOUR
                DEFINED AS
                !The naming attribute for object class interfaces.!;;
REGISTERED AS {iimcAutoName 1 3 6 1 2 1 2};

internetSystemId ATTRIBUTE
        WITH ATTRIBUTE SYNTAX IIMCRFC12131354ASN1.InternetSystemIdValue;
        MATCHES FOR     EQUALITY;
        BEHAVIOUR
                internetSystemIdBehaviour BEHAVIOUR
                DEFINED AS
                !The naming attribute for object class internetSystem.!;;
REGISTERED AS {iimcAutoName 1 3 6 1 2 1 1};

ipAddrEntryId ATTRIBUTE
        WITH ATTRIBUTE SYNTAX IIMCRFC12131354ASN1.IpAddrEntryIdValue;
        MATCHES FOR     EQUALITY;
        BEHAVIOUR
                ipAddrEntryIdBehaviour BEHAVIOUR
                DEFINED AS
                !The naming attribute for object class ipAddrEntry.!;;
REGISTERED AS {iimcAutoName 1 3 6 1 2 1 4 20 1};

ipAdEntAddr ATTRIBUTE
```

```
        DERIVED FROM   {iimcIIMCIMIBTRANS}:ipAddress;
        BEHAVIOUR
                ipAdEntAddrBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipAdEntAddr with object id {ipAddrEntry 1} in
                RFC1213.!!;
                DESCRIPTION
                !!The IP address to which this entry's addressing information pertains.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 20 1 1};

ipAdEntBcastAddr ATTRIBUTE
        WITH ATTRIBUTE SYNTAX  IIMCRFC12131354ASN1.Integer;
        MATCHES FOR      EQUALITY, ORDERING;
        BEHAVIOUR
                ipAdEntBcastAddrBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipAdEntBcastAddr with object id {ipAddrEntry 4} in
                RFC1213.!!;
                DESCRIPTION
                !!The value of the least-significant bit in the IP broadcast address used for
                sending datagrams on the (logical) interface associated with the IP address of
                this entry. For example, when the Internet standard all-ones broadcast address
                is used, the value will be 1. This value applies to both the subnet and network
                broadcasts addresses used by the entity on this (logical) interface.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 20 1 4};

ipAdEntIfIndex ATTRIBUTE
        WITH ATTRIBUTE SYNTAX  IIMCRFC12131354ASN1.Integer;
        MATCHES FOR      EQUALITY, ORDERING;
        BEHAVIOUR
                ipAdEntIfIndexBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipAdEntIfIndex with object id {ipAddrEntry 2} in
                RFC1213.!!;
                DESCRIPTION
                !!The index value which uniquely identifies the interface to which this entry is
                applicable. The interface identified by a particular value of this index is the same
                interface as identified by the same value of ifIndex.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 20 1 2};

ipAdEntNetMask ATTRIBUTE
        DERIVED FROM   {iimcIIMCIMIBTRANS}:ipAddress;
        BEHAVIOUR
                ipAdEntNetMaskBehaviour BEHAVIOUR
                DEFINED AS
```

```
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipAdEntNetMask with object id {ipAddrEntry 3} in
                RFC1213.!!;
                DESCRIPTION
                !!The subnet mask associated with the IP address of this entry. The value of the
                mask is an IP address with all the network bits set to 1 and all the hosts bits set
                to 0.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 20 1 3};

ipAdEntReasmMaxSize ATTRIBUTE
        WITH ATTRIBUTE SYNTAX  IIMCRFC12131354ASN1.Integer64k;
        MATCHES FOR     EQUALITY, ORDERING;
        BEHAVIOUR
                ipAdEntReasmMaxSizeBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipAdEntReasmMaxSize with object id {ipAddrEntry 5} in
                RFC1213.!!;
                DESCRIPTION
                !!The size of the largest IP datagram which this entity can re-assemble from
                incoming IP fragmented datagrams received on this interface.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 20 1 5};

ipDefaultTTL ATTRIBUTE
        WITH ATTRIBUTE SYNTAX IIMCRFC12131354ASN1.Integer;
        MATCHES FOR     EQUALITY, ORDERING;
        BEHAVIOUR
                ipDefaultTTLBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipDefaultTTL with object id {ip 2} in RFC1213.!!;
                DESCRIPTION
                !!The default value inserted into the Time-To-Live field of the IP header of
                datagrams originated at this entity, whenever a TTL value is not supplied by the
                transport layer protocol.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 2};

ipForwardAge ATTRIBUTE
        WITH ATTRIBUTE SYNTAX IIMCRFC12131354ASN1.Integer;
        MATCHES FOR          EQUALITY, ORDERING;
        BEHAVIOUR
                ipForwardAgeBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipForwardAge with object id {ipForwardEntry 8} in
                RFC1354.!!;
                DESCRIPTION
```

```
                !!The number of seconds since this route was last  updated or otherwise
                determined  to be correct.  Note that no semantics of  `too  old' can  be implied
                except through knowledge of the routing protocol by which the route was
                learned.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 24 2  1 8};

ipForwardDest ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS}: ipAddress;
        BEHAVIOUR
                ipForwardDestBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipForwardDest with object id {ipForwardEntry 1} in
                RFC1354.!!;
                DESCRIPTION
                !!The destination IP address of this route. An entry  with  a value of 0.0.0.0 is
                considered a default route.

                This attribute may not take a Multicast (Class  D) address value.

                Any assignment (implicit or  otherwise) of  an instance of this attribute to a value
                x must be rejected if the bitwise logical-AND of x with the  value of the
                corresponding instance of the ipForwardMask attribute is not equal to x.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 24 2  1 1};

ipForwardEntryId ATTRIBUTE
        WITH ATTRIBUTE SYNTAX IIMCRFC12131354ASN1.IpForwardEntryIdValue;
        MATCHES FOR      EQUALITY;
        BEHAVIOUR
                ipForwardEntryIdBehaviour BEHAVIOUR
                DEFINED AS
                !The naming attribute for object class ipForwardEntry.!;;
REGISTERED AS {iimcAutoName 1 3 6 1 2 1 4 24 2 1};

ipForwardIfIndex ATTRIBUTE
        WITH ATTRIBUTE SYNTAX IIMCRFC12131354ASN1.Integer;
        MATCHES FOR  EQUALITY, ORDERING;
        BEHAVIOUR
                ipForwardIfIndexBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipForwardIfIndex with object id {ipForwardEntry 5} in
                RFC1354.!!;
                DESCRIPTION
                !!The ifIndex value which identifies  the  local interface  through  which  the next
                hop of this route should be reached.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 24 2  1 5};

ipForwardInfo ATTRIBUTE
```

```
        WITH ATTRIBUTE SYNTAX IIMCRFC12131354ASN1.ObjectIdentifier;
        MATCHES FOR EQUALITY, ORDERING;
        BEHAVIOUR
                ipForwardInfoBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipForwardInfo with object id {ipForwardEntry 9} in
                RFC1354.!!;
                DESCRIPTION
                !!A reference to MIB definitions specific to the particular routing protocol which is
                responsible for this route, as determined by the value specified  in the route's
                ipForwardProto value. If this information is not present, its value should be set to
                the OBJECT IDENTIFIER {0 0 }, which is a syntactically valid object identifier,
                and any implementation conforming to ASN.1 and the Basic Encoding Rules
                must be able to generate and recognize this value.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 24 2  1 9};

ipForwarding ATTRIBUTE
        WITH ATTRIBUTE SYNTAX  IIMCRFC12131354ASN1.IpForwarding;
        MATCHES FOR      EQUALITY, ORDERING;
        BEHAVIOUR
                ipForwardingBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipForwarding with object id {ip 1} in RFC 1213.!!;
                DESCRIPTION
                !!The indication of whether this entity is acting as an IP gateway in respect to the
                forwarding of datagrams received by, but not addressed to, this entity. IP
                gateways forward datagrams. IP hosts do not (except those source-routed via
                the host).

                Note that for some managed nodes, this attribute may take on only a subset of
                the values possible. Accordingly, it is appropriate for an agent to return a
                `badValue' response if a management station attempts to change this attribute to
                an inappropriate value.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 1};

ipForwardMask ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS}: ipAddress;
        BEHAVIOUR
                ipForwardMaskBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipForwardMask with object id {ipForwardEntry 2} in
                RFC1354.!!;
                DESCRIPTION
                !!Indicate the mask to be logical- ANDed with the destination  address  before
                being compared to the value  in  the ipForwardDest  field. For those systems
```

```
                that do  not support arbitrary subnet masks, an agent constructs the value of the
                ipForwardMask by reference to the IP Address Class.

                Any assignment (implicit or otherwise) of an instance of this  attribute to a value x
                must be rejected if the bitwise logical-AND of x with the  value of the
                corresponding instance of the ipForwardDest attribute is not equal to
                ipForwardDest.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 24 2  1 2};

ipForwardNextHop ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS}: ipAddress;
        BEHAVIOUR
                ipForwardNextHopBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipForwardNextHop with object id {ipForwardEntry 4} in
                RFC1354.!!;
                DESCRIPTION
                !!On remote routes, the address of the next system en route; Otherwise,
                0.0.0.0.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 24 2  1 4};

ipForwardNextHopAS ATTRIBUTE
        WITH ATTRIBUTE SYNTAX IIMCRFC12131354ASN1.Integer;
        MATCHES FOR EQUALITY, ORDERING;
        BEHAVIOUR
                ipForwardNextHopASBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipForwardNextHopAS with object id {ipForwardEntry 10}
                in RFC1354.!!;
                DESCRIPTION
                !!The Autonomous System Number of the Next Hop. When this is unknown or
                not relevant to the protocol indicated by ipForwardProto, zero.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 24 2  1 10};

ipForwardNumber ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS}: gauge32;
        BEHAVIOUR
                ipForwardNumberBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipForwardNumber with object id {ipForward 1} in
                RFC1354.!!;
                DESCRIPTION
                !!The number of current ipForward entries that are not invalid.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 24 1};
```

```
ipForwardMetric1 ATTRIBUTE
        WITH ATTRIBUTE SYNTAX IIMCRFC12131354ASN1.Integer;
        MATCHES FOR EQUALITY, ORDERING;
        BEHAVIOUR
                ipForwardMetric1Behaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipForwardMetric1 with object id {ipForwardEntry 11} in
                RFC1354.!!;
                DESCRIPTION
                !!The primary routing  metric  for  this  route. The semantics of this metric are
                determined by the routing-protocol specified in the route's ipForwardProto  value.
                If this metric is not used, its value should be set to -1.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 24 2  1 11};

ipForwardMetric2 ATTRIBUTE
        WITH ATTRIBUTE SYNTAX IIMCRFC12131354ASN1.Integer;
        MATCHES FOR EQUALITY, ORDERING;
        BEHAVIOUR
                ipForwardMetric2Behaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipForwardMetric2 with object id {ipForwardEntry 12} in
                RFC1354.!!;
                DESCRIPTION
                !!An alternate routing metric  for  this  route. The  semantics of this metric are
                determined by the routing-protocol specified in  the route's ipForwardProto
                value. If this metric is not used, its value should be set to -1.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 24 2  1 12};

ipForwardMetric3 ATTRIBUTE
        WITH ATTRIBUTE SYNTAX IIMCRFC12131354ASN1.Integer;
        MATCHES FOR EQUALITY, ORDERING;
        BEHAVIOUR
                ipForwardMetric3Behaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipForwardMetric3 with object id {ipForwardEntry 13} in
                RFC1354.!!;
                DESCRIPTION
                !!An alternate routing metric for this route. The semantics of this metric are
                determined by the routing-protocol specified in the route's ipForwardProto value.
                If this metric is not used, its value should be set to -1.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 24 2  1 13};

ipForwardMetric4 ATTRIBUTE
        WITH ATTRIBUTE SYNTAX IIMCRFC12131354ASN1.Integer;
```

```
        MATCHES FOR EQUALITY, ORDERING;
        BEHAVIOUR
                ipForwardMetric4Behaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipForwardMetric4 with object id {ipForwardEntry 14} in
                RFC1354.!!;
                DESCRIPTION
                !!An alternate routing metric for this route. The semantics of this metric are
                determined by the routing-protocol specified in the route's ipForwardProto value.
                If this metric is not used, its value should be set to -1.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 24 2  1 14};

ipForwardMetric5 ATTRIBUTE
        WITH ATTRIBUTE SYNTAX IIMCRFC12131354ASN1.Integer;
        MATCHES FOR EQUALITY, ORDERING;
        BEHAVIOUR
                ipForwardMetric5Behaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipForwardMetric5 with object id {ipForwardEntry 15} in
                RFC1354.!!;
                DESCRIPTION
                !!An alternate routing metric for this route. The semantics of this metric are
                determined by the routing-protocol specified in  the route's ipForwardProto value.
                If this metric is not used, its value should be set to -1.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 24 2  1 15};

ipForwardPolicy ATTRIBUTE
        WITH ATTRIBUTE SYNTAX IIMCRFC12131354ASN1.Integer;
        MATCHES FOR EQUALITY, ORDERING;
        BEHAVIOUR
                ipForwardPolicyBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipForwardPolicy with object id {ipForwardEntry 3} in
                RFC1354.!!;
                DESCRIPTION
                !!The general set of conditions that would cause the selection of one multipath
                route (set of next hops for a given destination) is  referred to as 'policy'.

                Unless the mechanism indicated by ipForwardProto specifies otherwise, the
                policy specifier is the IP TOS Field.  The encoding of IP TOS is as specified  by
                the  following convention.  Zero indicates the default path if no more  specific
                policy applies.

                    IP TOS                          IP TOS
                    Field        Policy             Field        Policy
                    Contents     Code               Contents     Code
```

0 0 0 0 ==> 0	0 0 0 1 ==> 2
0 0 1 0 ==> 4	0 0 1 1 ==> 6
0 1 0 0 ==> 8	0 1 0 1 ==> 10
0 1 1 0 ==> 12	0 1 1 1 ==> 14
1 0 0 0 ==> 16	1 0 0 1 ==> 18
1 0 1 0 ==> 20	1 0 1 1 ==> 22
1 1 0 0 ==> 24	1 1 0 1 ==> 26
1 1 1 0 ==> 28	1 1 1 1 ==> 30

Protocols defining 'policy' otherwise must either define a set of values which are valid for this attribute or must implement an integer-instanced policy table for which this attribute's value acts as an index.!!;
ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 24 2 1 3};

ipForwardProto ATTRIBUTE
WITH ATTRIBUTE SYNTAX IIMCRFC12131354ASN1.IpForwardProto;
MATCHES FOR EQUALITY, ORDERING;
BEHAVIOUR
ipForwardProtoBehaviour BEHAVIOUR
DEFINED AS
!BEGINPARSE
REFERENCE
!!This attribute maps to ipForwardProto with object id {ipForwardEntry 7} in RFC1354.!!;
DESCRIPTION
!!The routing mechanism via which this route was learned. Inclusion of values for gateway routing protocols is not intended to imply that hosts should support those protocols.!!;
ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 24 2 1 7};

ipForwardType ATTRIBUTE
WITH ATTRIBUTE SYNTAX IIMCRFC12131354ASN1.IpForwardType;
MATCHES FOR EQUALITY, ORDERING;
BEHAVIOUR
ipForwardTypeBehaviour BEHAVIOUR
DEFINED AS
!BEGINPARSE
REFERENCE
!!This attribute maps to ipForwardType with object id {ipForwardEntry 6} in RFC1354.!!;
DESCRIPTION
!!The type of route. Note that local(3) refers to a route for which the next hop is the final destination; remote(4) refers to a route for which the next hop is not the final destination.

Setting this attribute to the value invalid(2) has the effect of invalidating the corresponding ipForwardEntry. That is, it effectively disassociates the destination identified with said entry from the route identified with said entry. It is an implementation-specific matter as to whether the agent removes an invalidated entry from the table. Accordingly, management stations must be prepared to receive tabular information from agents that corresponds to entries

```
                not currently in use.  Proper interpretation of such entries requires examining the
                relevant ipForwardType attribute.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 24 2  1 6};

ipForwDatagrams ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                ipForwDatagramsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipForwDatagrams with object id {ip 6} in RFC1213.!!;
                DESCRIPTION
                !!The number of input datagrams for which this entity was not their final IP
                destination, as a result of which an attempt was made to find a route to forward
                them to that final destination. In entities which do not act as IP Gateways, this
                counter will include only those packets which were Source-Routed via this entity,
                and the Source- Route option processing was successful.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 6};


ipFragCreates ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                ipFragCreatesBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipFragCreates with object id {ip 19} in RFC1213.!!;
                DESCRIPTION
                !!The number of IP datagram fragments that have been generated as a result of
                fragmentation at this entity.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 19};

ipFragFails ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                ipFragFailsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipFragFails with object id {ip 18} in RFC1213.!!;
                DESCRIPTION
                !!The number of IP datagrams that have been discarded because they needed to
                be fragmented at this entity but could not be, e.g., because their Don't Fragment
                flag was set.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 18};

ipFragOKs ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
```

```
        BEHAVIOUR
                ipFragOKsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipFragOKs with object id {ip 17} in RFC1213.!!;
                DESCRIPTION
                !!The number of IP datagrams that have been successfully fragmented at this
                entity.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 17};

ipId ATTRIBUTE
        WITH ATTRIBUTE SYNTAX  IIMCRFC12131354ASN1.IpIdValue;
        MATCHES FOR      EQUALITY;
        BEHAVIOUR
                ipIdBehaviour BEHAVIOUR
                DEFINED AS
                !The naming attribute for object class ip.!;;
REGISTERED AS {iimcAutoName 1 3 6 1 2 1 4};

ipInAddrErrors ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                ipInAddrErrorsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipInAddrErrors with object id {ip 5} in RFC1213.!!;
                DESCRIPTION
                !!The number of input datagrams discarded because the IP address in their IP
                header's destination field was not a valid address to be received at this entity.
                This count includes invalid addresses (e.g., 0.0.0.0) and addresses of
                unsupported Classes (e.g., Class E). For entities which are not IP Gateways and
                therefore do not forward datagrams, this counter includes datagrams discarded
                because the destination address was not a local address.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 5};

ipInDelivers ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                ipInDeliversBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipInDelivers with object id {ip 9} in RFC1213.!!;
                DESCRIPTION
                !!The total number of input datagrams successfully delivered to IP user-protocols
                (including ICMP).!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 9};

ipInDiscards ATTRIBUTE
```

```
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                ipInDiscardsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipInDiscards with object id {ip 8} in RFC1213.!!;
                DESCRIPTION
                !!The number of input IP datagrams for which no problems were encountered to
                prevent their continued processing, but which were discarded (e.g., for lack of
                buffer space). Note that this counter does not include any datagrams discarded
                while awaiting re-assembly.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 8};

ipInHdrErrors ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                ipInHdrErrorsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipInHdrErrors with object id {ip 4} in RFC1213.!!;
                DESCRIPTION
                !!The number of input datagrams discarded due to errors in their IP headers,
                including bad checksums, version number mismatch, other format errors, time-
                to-live exceeded, errors discovered in processing their IP options, etc.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 4};

ipInReceives ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                ipInReceivesBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipInReceives with object id {ip 3} in RFC1213.!!;
                DESCRIPTION
                !!The total number of input datagrams received from interfaces, including those
                received in error.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 3};

ipInUnknownProtos ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                ipInUnknownProtosBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipInUnknownProtos with object id {ip 7} in RFC1213.!!;
                DESCRIPTION
```

```
                !!The number of locally-addressed datagrams received successfully but
                discarded because of an unknown or unsupported protocol.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 7};

ipNetToMediaEntryId ATTRIBUTE
        WITH ATTRIBUTE SYNTAX IIMCRFC12131354ASN1.IpNetToMediaEntryIdValue;
        MATCHES FOR     EQUALITY;
        BEHAVIOUR
                ipNetToMediaEntryIdBehaviour BEHAVIOUR
                DEFINED AS
                !The naming attribute for object class
                ipNetToMediaEntry.!;;
REGISTERED AS {iimcAutoName 1 3 6 1 2 1 4 22 1};

ipNetToMediaIfIndex ATTRIBUTE
        WITH ATTRIBUTE SYNTAX   IIMCRFC12131354ASN1.Integer;
        MATCHES FOR     EQUALITY, ORDERING;
        BEHAVIOUR
                ipNetToMediaIfIndexBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipNetToMediaIfIndex with object id {ipNetToMediaEntry
                1} in RFC1213.!!;
                DESCRIPTION
                !!The interface on which this entry's equivalence is effective. The interface
                identified by a particular value of this index is the same interface as identified by
                the same value of ifIndex.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 22 1 1};

ipNetToMediaNetAddress ATTRIBUTE
        DERIVED FROM   {iimcIIMCIMIBTRANS}:ipAddress;
        BEHAVIOUR
                ipNetToMediaNetAddressBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipNetToMediaNetAddress with object id
                {ipNetToMediaEntry 3} in RFC1213.!!;
                DESCRIPTION
                !!The IpAddress corresponding to the media- dependent `physical' address.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 22 1 3};

ipNetToMediaPhysAddress ATTRIBUTE
        DERIVED FROM  {iimcIIMCIMIBTRANS}:physAddress;
        BEHAVIOUR
                ipNetToMediaPhysAddressBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
```

```
                !!This attribute maps to ipNetToMediaPhysAddress with object id
                {ipNetToMediaEntry 2} in RFC1213.!!;
                DESCRIPTION
                !!The media-dependent `physical' address.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 22 1 2};

ipNetToMediaType ATTRIBUTE
        WITH ATTRIBUTE SYNTAX  IIMCRFC12131354ASN1.IpNetToMediaType;
        MATCHES FOR      EQUALITY, ORDERING;
        BEHAVIOUR
                ipNetToMediaTypeBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipNetToMediaType with object id {ipNetToMediaEntry 4}
                in RFC1213.!!;
                DESCRIPTION
                !!The type of mapping. Setting this attribute to the value invalid(2) has the effect
                of invalidating the corresponding entry in the ipNetToMediaTable. That is, it
                effectively disassociates the interface identified with said entry from the mapping
                identified with said entry. It is an implementation-specific matter as to whether
                the agent removes an invalidated entry from the table. Accordingly, management
                stations must be prepared to receive tabular information from agents that
                corresponds to entries not currently in use. Proper interpretation of such entries
                requires examination of the relevant ipNetToMediaType attribute.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 22 1 4};

ipOutDiscards ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                ipOutDiscardsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipOutDiscards with object id ip 11} in RFC1213.!!;
                DESCRIPTION
                !!The number of output IP datagrams for which no problem was encountered to
                prevent their transmission to their destination, but which were discarded (e.g., for
                lack of buffer space). Note that this counter would include datagrams counted in
                ipForwDatagrams if any such packets met this (discretionary) discard criterion.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 11};

ipOutNoRoutes ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                ipOutNoRoutesBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipOutNoRoutes with object id {ip 12} in RFC1213.!!;
                DESCRIPTION
```

```
                !!The number of IP datagrams discarded because no route could be found to
                transmit them to their destination. Note that this counter includes any packets
                counted in ipForwDatagrams which meet this `no-route' criterion. Note that this
                includes any datagrams which a host cannot route because all of its default
                gateways are down.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 12};

ipOutRequests ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                ipOutRequestsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipOutRequests with object id {ip 10}.!!;
                DESCRIPTION
                !!The total number of IP datagrams which local IP user-protocols (including
                ICMP) supplied to IP in requests for transmission. Note that this counter does
                not include any datagrams counted in ipForwDatagrams.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 10};

ipReasmFails ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                ipReasmFailsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipReasmFails with objects id {ip 16} in RFC1213.!!;
                DESCRIPTION
                !!The number of failures detected by the IP re- assembly algorithm (for whatever
                reason: timed out, errors, etc). Note that this is not necessarily a count of
                discarded IP fragments since some algorithms (notably the algorithm in RFC
                815) can lose track of the number of fragments by combining them as they are
                received.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 16};

ipReasmOKs ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                ipReasmOKsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipReasmOKs with object id {ip 15} in RFC1213.!!;
                DESCRIPTION
                !!The number of IP datagrams successfully re- assembled.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 15};

ipReasmReqds ATTRIBUTE
```

```
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                ipReasmReqdsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipReasmReqds with object id {ip 4} in RFC1213.!!;
                DESCRIPTION
                !!The number of IP fragments received which needed to be reassembled at this
                entity.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 14};

ipReasmTimeout ATTRIBUTE
    WITH ATTRIBUTE SYNTAX   IIMCRFC12131354ASN1.Integer;
        MATCHES FOR      EQUALITY, ORDERING;
        BEHAVIOUR
                ipReasmTimeoutBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipReasmTimeout with object id {ip 13} in RFC1213.!!;
                DESCRIPTION
                !!The maximum number of seconds which received fragments are held while they
                are awaiting reassembly at this entity.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 13};

ipRouteAge ATTRIBUTE
        WITH ATTRIBUTE SYNTAX  IIMCRFC12131354ASN1.Integer;
        MATCHES FOR      EQUALITY, ORDERING;
        BEHAVIOUR
                ipRouteAgeBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipRouteAge with object id {ipRouteEntry 10} in
                RFC1213.!!;
                DESCRIPTION
                !!The number of seconds since this route was last updated or otherwise
                determined to be correct. Note that no semantics of `too old' can be implied
                except through knowledge of the routing protocol by which the route was
                learned.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 21 1 10};

ipRouteDest ATTRIBUTE
        DERIVED FROM   {iimcIIMCIMIBTRANS}:ipAddress;
        BEHAVIOUR
                ipRouteDestBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
```

```
                !!This attribute maps to ipRouteDest with object id {ipRouteEntry 1} in
                RFC1213.!!;
                DESCRIPTION
                !!The destination IP address of this route. An entry with a value of 0.0.0.0 is
                considered a default route. Multiple routes to a single destination can appear in
                the table, but access to such multiple entries is dependent on the table- access
                mechanisms defined by the network management protocol in use.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 21 1 1};

ipRouteEntryId ATTRIBUTE
        WITH ATTRIBUTE SYNTAX IIMCRFC12131354ASN1.IpRouteEntryIdValue;
        MATCHES FOR     EQUALITY;
        BEHAVIOUR
                ipRouteEntryIdBehaviour BEHAVIOUR
                DEFINED AS !The naming attribute for object class ipRouteEntry.!;;
REGISTERED AS {iimcAutoName 1 3 6 1 2 1 4 21 1};

ipRouteIfIndex ATTRIBUTE
        WITH ATTRIBUTE SYNTAX   IIMCRFC12131354ASN1.Integer;
        MATCHES FOR     EQUALITY, ORDERING;
        BEHAVIOUR
                ipRouteIfIndexBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipRouteIfIndex with object id {ipRouteEntry 2} in
                RFC1213.!!;
                DESCRIPTION
                !!The index value which uniquely identifies the local interface through which the
                next hop of this route should be reached. The interface identified by a particular
                value of this index is the same interface as identified by the same value of
                ifIndex.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 21 1 2};

ipRouteInfo ATTRIBUTE
        WITH ATTRIBUTE SYNTAX   IIMCRFC12131354ASN1.ObjectIdentifier;
        MATCHES FOR     EQUALITY, ORDERING;
        BEHAVIOUR
                ipRouteInfoBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipRouteInfo with object id {ipRouteEntry 13} in
                RFC1213.!!;
                DESCRIPTION
                !!A reference to MIB definitions specific to the particular routing protocol which is
                responsible for this route, as determined by the value specified in the route's
                ipRouteProto value. If this information is not present, its value should be set to
                the OBJECT IDENTIFIER { 0 0 }, which is a syntactically valid object identifier,
                and any conformant implementation of ASN.1 and BER must be able to generate
                and recognize this value.!!;
                ENDPARSE!;;
```

```
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 21 1 13};

ipRouteMask ATTRIBUTE
        DERIVED FROM   {iimcIIMCIMIBTRANS}:ipAddress;
        BEHAVIOUR
                ipRouteMaskBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipRouteMask with object id {ipRouteEntry 11} in
                RFC1213.!!;
                DESCRIPTION
                !!Indicate the mask to be logical-ANDed with the destination address before
                being compared to the value in the ipRouteDest field. For those systems that do
                not support arbitrary subnet masks, an agent constructs the value of the
                ipRouteMask by determining whether the value of the correspondent
                ipRouteDest field belong to a class-A, B, or C network, and then using one of:

                mask                    network
                255.0.0.0               class-A
                255.255.0.0             class-B
                255.255.255.0           class-C

                If the value of the ipRouteDest is 0.0.0.0 (a default route), then the mask value is
                also 0.0.0.0. It should be noted that all IP routing subsystems implicitly use this
                mechanism.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 21 1 11};

ipRouteMetric1 ATTRIBUTE
    WITH ATTRIBUTE SYNTAX   IIMCRFC12131354ASN1.Integer;
    MATCHES FOR     EQUALITY, ORDERING;
        BEHAVIOUR
                ipRouteMetric1Behaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipRouteMetric1 with object id {ipRouteEntry 3} in
                RFC1213.!!;
                DESCRIPTION
                !!The primary routing metric for this route. The semantics of this metric are
                determined by the routing-protocol specified in the route's ipRouteProto value. If
                this metric is not used, its value should be set to -1.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 21 1 3};

ipRouteMetric2 ATTRIBUTE
        WITH ATTRIBUTE SYNTAX   IIMCRFC12131354ASN1.Integer;
        MATCHES FOR     EQUALITY, ORDERING;
        BEHAVIOUR
                ipRouteMetric2Behaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
```

```
                !!This attribute maps to ipRouteMetric with object id {ipRouteEntry 4} in
                RFC1213.!!;
                DESCRIPTION
                !!An alternate routing metric for this route. The semantics of this metric are
                determined by the routing-protocol specified in the route's ipRouteProto value. If
                this metric is not used, its value should be set to -1.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 21 1 4};

ipRouteMetric3 ATTRIBUTE
        WITH ATTRIBUTE SYNTAX   IIMCRFC12131354ASN1.Integer;
        MATCHES FOR     EQUALITY, ORDERING;
        BEHAVIOUR
                ipRouteMetric3Behaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipRouteMetric3 with object id {ipRouteEntry 5} in
                RFC1213.!!;
                DESCRIPTION
                !!An alternate routing metric for this route. The semantics of this metric are
                determined by the routing-protocol specified in the route's ipRouteProto value. If
                this metric is not used, its value should be set to -1.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 21 1 5};

ipRouteMetric4 ATTRIBUTE
        WITH ATTRIBUTE SYNTAX   IIMCRFC12131354ASN1.Integer;
        MATCHES FOR     EQUALITY, ORDERING;
        BEHAVIOUR
                ipRouteMetric4Behaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipRouteMetric4 with object id {ipRouteEntry 6} in
                RFC1213.!!;
                DESCRIPTION
                !!An alternate routing metric for this route. The semantics of this metric are
                determined by the routing-protocol specified in the route's ipRouteProto value. If
                this metric is not used, its value should be set to -1.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 21 1 6};

ipRouteMetric5 ATTRIBUTE
        WITH ATTRIBUTE SYNTAX   IIMCRFC12131354ASN1.Integer;
        MATCHES FOR     EQUALITY, ORDERING;
        BEHAVIOUR
                ipRouteMetric5Behaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipRouteMetric5 with object id {ipRouteEntry 12} in
                RFC1213.!!;
                DESCRIPTION
```

```
                !!An alternate routing metric for this route. The semantics of this metric are
                determined by the routing-protocol specified in the route's ipRouteProto value. If
                this metric is not used, its value should be set to -1.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 21 1 12};

ipRouteNextHop ATTRIBUTE
        DERIVED FROM   {iimcIIMCIMIBTRANS}:ipAddress;
        BEHAVIOUR
                ipRouteNextHopBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipRouteNextHop with object id {ipRouteEntry 7} in
                RFC1213.!!;
                DESCRIPTION
                !!The IP address of the next hop of this route. (In the case of a route bound to an
                interface which is realized via a broadcast media, the value of this field is the
                agent's IP address on that interface.)!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 21 1 7};

ipRouteProto ATTRIBUTE
        WITH ATTRIBUTE SYNTAX  IIMCRFC12131354ASN1.IpRouteProto;
        MATCHES FOR      EQUALITY, ORDERING;
        BEHAVIOUR
                ipRouteProtoBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipRouteProto with object id {ipRouteEntry 9} in
                RFC1213.!!;
                DESCRIPTION
                !!The routing mechanism via which this route was learned. Inclusion of values for
                gateway routing protocols is not intended to imply that hosts should support
                those protocols.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 21 1 9};

ipRouteType ATTRIBUTE
        WITH ATTRIBUTE SYNTAX  IIMCRFC12131354ASN1.IpRouteType;
        MATCHES FOR      EQUALITY, ORDERING;
        BEHAVIOUR
                ipRouteTypeBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to ipRouteType with object id {ipRouteEntry 8} in
                RFC1213.!!;
                DESCRIPTION
                !!The type of route. Note that the values direct(3) and indirect(4) refer to the
                notion of direct and indirect routing in the IP architecture.
```

Setting this attribute to the value invalid(2) has the effect of invalidating the corresponding ipRouteEntry. That is, it effectively disassociates the destination identified with said entry from the route identified with said entry. It is an implementation-specific matter as to whether the agent removes an invalidated entry from the table. Accordingly, management stations must be prepared to receive tabular information from agents that corresponds to entries not currently in use. Proper interpretation of such entries requires examination of the relevant ipRouteType attribute.!!;
ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 21 1 8};

ipRoutingDiscards ATTRIBUTE
DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
BEHAVIOUR
ipRoutingDiscardsBehaviour BEHAVIOUR
DEFINED AS
!BEGINPARSE
REFERENCE
!!This attribute maps to ipRoutingDiscards with object id {ip 23} in RFC1213.!!;
DESCRIPTION
!!The number of routing entries which were chosen to be discarded even though they are valid. One possible reason for discarding such an entry could be to free-up buffer space for other routing entries.!!;
ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 4 23};

snmpEnableAuthenTraps ATTRIBUTE
WITH ATTRIBUTE SYNTAX IIMCRFC12131354ASN1.SnmpEnableAuthenTraps;
MATCHES FOR EQUALITY, ORDERING;
BEHAVIOUR
snmpEnableAuthenTrapsBehaviour BEHAVIOUR
DEFINED AS
!BEGINPARSE
REFERENCE
!!This attribute maps to snmpEnableAuthenTraps with object id {snmp 30} in RFC1213.!!;
DESCRIPTION
!!Indicates whether the SNMP agent process is permitted to generate authentication-failure traps. The value of this attribute overrides any configuration information; as such, it provides a means whereby all authentication-failure traps may be disabled.

Note that it is strongly recommended that this attribute be stored in non-volatile memory so that it remains constant between re-initializations of the network management system.!!;
ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 11 30};

snmpId ATTRIBUTE
WITH ATTRIBUTE SYNTAX IIMCRFC12131354ASN1.SnmpIdValue;
MATCHES FOR EQUALITY;
BEHAVIOUR
snmpIdBehaviour BEHAVIOUR
DEFINED AS

```
                !The naming attribute for object class snmp.!;;
REGISTERED AS {iimcAutoName 1 3 6 1 2 1 11};

snmpInASNParseErrs      ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                snmpInASNParseErrsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to snmpInASNParseErrs with object id {snmp 6} in
                RFC1213.!!;
                DESCRIPTION
                !!The total number of ASN.1 or BER errors encountered by the SNMP protocol
                entity when decoding received SNMP Messages.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 11 6};

snmpInBadCommunityNames ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                snmpInBadCommunityNamesBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to snmpInBadCommunityNames with object id {snmp 4} in
                RFC1213.!!;
                DESCRIPTION
                !!The total number of SNMP Messages delivered to the SNMP protocol entity
                which used a SNMP community name not known to said entity.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 11 4};

snmpInBadCommunityUses  ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                snmpInBadCommunityUsesBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to snmpInBadCommunityUses with object id {snmp 5} in
                RFC1213.!!;
                DESCRIPTION
                !!The total number of SNMP Messages delivered to the SNMP protocol entity
                which represented an SNMP operation which was not allowed by the SNMP
                community named in the Message.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 11 5};

snmpInBadValues ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                snmpInBadValuesBehaviour BEHAVIOUR
                DEFINED AS
```

```
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to the snmpInBadValues with object id {snmp 10} in
                RFC1213.!!;
                DESCRIPTION
                !!The total number of SNMP PDUs which were delivered to the SNMP protocol
                entity and for which the value of the error-status field is `badValue'.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 11 10};

snmpInBadVersions       ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                snmpInBadVersionsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to the snmpInBadVersions with object id {snmp 3} in
                RFC1213.!!;
                DESCRIPTION
                !!The total number of SNMP Messages which were delivered to the SNMP
                protocol entity and were for an unsupported SNMP version.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 11 3};

snmpInGenErrs   ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                snmpInGenErrsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to the snmpInGenErrs with object id {snmp 12} in
                RFC1213.!!;
                DESCRIPTION
                !!The total number of SNMP PDUs which were delivered to the SNMP protocol
                entity and for which the value of the error-status field is `genErr'.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 11 12};

snmpInGetNexts  ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                snmpInGetNextsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to the snmpInGetNexts with object id {snmp 16} in
                RFC1213.!!;
                DESCRIPTION
                !!The total number of SNMP Get-Next PDUs which have been accepted and
                processed by the SNMP protocol entity.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 11 16};
```

```
snmpInGetRequests       ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                snmpInGetRequestsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to the snmpInGetRequests with object id {snmp 15} in
                RFC1213.!!;
                DESCRIPTION
                !!The total number of SNMP Get-Request PDUs which have been accepted and
                processed by the SNMP protocol entity.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 11 15};

snmpInGetResponses      ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                snmpInGetResponsesBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to the snmpInGetResponses with object id {snmp 18} in
                RFC1213.!!;
                DESCRIPTION
                !!The total number of SNMP Get-Response PDUs which have been accepted
                and processed by the SNMP protocol entity.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 11 18};

snmpInNoSuchNames       ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                snmpInNoSuchNamesBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to the snmpInNoSuchNames with object id {snmp 9} in
                RFC1213.!!;
                DESCRIPTION
                !!The total number of SNMP PDUs which were delivered to the SNMP protocol
                entity and for which the value of the error-status field is `noSuchName'.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 11 9};

snmpInPkts      ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                snmpInPktsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to snmpInPkts with object id {snmp 1} in RFC1213.!!;
```

```
                DESCRIPTION
                !!The total number of Messages delivered to the SNMP entity from the transport
                service.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 11 1};

snmpInReadOnlys ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                snmpInReadOnlysBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to the snmpInReadOnlys with object id {snmp 11} in
                RFC1213.!!;
                DESCRIPTION
                !!The total number valid SNMP PDUs which were delivered to the SNMP
                protocol entity and for which the value of the error-status field is `readOnly'. It
                should be noted that it is a protocol error to generate an SNMP PDU which
                contains the value `readOnly' in the error-status field, as such this attribute is
                provided as a means of detecting incorrect implementations of the SNMP.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 11 11};

snmpInSetRequests       ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                snmpInSetRequestsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to snmpInSetRequests with object id {snmp 17} in
                RFC1213.!!;
                DESCRIPTION
                !!The total number of SNMP Set-Request PDUs which have been accepted and
                processed by the SNMP protocol entity.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 11 17};

snmpInTooBigs   ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                snmpInTooBigsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to snmpInTooBigs with object id {snmp 8} in RFC1213.!!;
                DESCRIPTION
                !!The total number of SNMP PDUs which were delivered to the SNMP protocol
                entity and for which the value of the error-status field is `tooBig'.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 11 8};

snmpInTotalReqVars      ATTRIBUTE
```

```
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                snmpInTotalReqVarsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to snmpInTotalReqVars with object id {snmp 13} in
                RFC1213.!!;
                DESCRIPTION
                !!The total number of MIB objects which have been retrieved successfully by the
                SNMP protocol entity as the result of receiving valid SNMP Get-Request and
                Get-Next PDUs.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 11 13};

snmpInTotalSetVars      ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                snmpInTotalSetVarsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to snmpInTotalSetVars with object id {snmp 14} in
                RFC1213.!!;
                DESCRIPTION
                !!The total number of MIB objects which have been altered successfully by the
                SNMP protocol entity as the result of receiving valid SNMP Set-Request
                PDUs.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 11 14};

snmpInTraps     ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                snmpInTrapsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to snmpInTraps with object id {snmp 19}.!!;
                DESCRIPTION
                !!The total number of SNMP Trap PDUs which have been accepted and
                processed by the SNMP protocol entity.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 11 19};

snmpOutBadValues        ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                snmpOutBadValuesBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to snmpOutBadValues with object id {snmp 22} in
                RFC1213.!!;
```

```
                DESCRIPTION
                !!The total number of SNMP PDUs which were generated by the SNMP protocol
                entity and for which the value of the error-status field is `badValue'.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 11 22};

snmpOutGenErrs  ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                snmpOutGenErrsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to snmpOutGenErrs with object id {snmp 24} in RFC1213.!!;
                DESCRIPTION
                !!The total number of SNMP PDUs which were generated by the SNMP protocol
                entity and for which the value of the error-status field is `genErr'.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 11 24};

snmpOutGetNexts ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                snmpOutGetNextsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to snmpOutGetNexts with object id {snmp 26} in
                RFC1213.!!;
                DESCRIPTION
                !!The total number of SNMP Get-Next PDUs which have been generated by the
                SNMP protocol entity.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 11 26};

snmpOutGetRequests      ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                snmpOutGetRequestsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to snmpOutGetRequests with object id {snmp 25} in
                RFC1213.!!;
                DESCRIPTION
                !!The total number of SNMP Get-Request PDUs which have been generated by
                the SNMP protocol entity.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 11 25};

snmpOutGetResponses     ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                snmpOutGetResponsesBehaviour BEHAVIOUR
```

```
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to snmpOutGetResponses with object id {snmp 28} in
                RFC1213.!!;
                DESCRIPTION
                !!The total number of SNMP Get-Response PDUs which have been generated
                by the SNMP protocol entity.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 11 28};

snmpOutNoSuchNames      ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                snmpOutNoSuchNamesBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to snmpOutNoSuchNames with object id {snmp 21} in
                RFC1213.!!;
                DESCRIPTION
                !!The total number of SNMP PDUs which were generated by the SNMP protocol
                entity and for which the value of the error-status is `noSuchName'.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 11 21};

snmpOutPkts     ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                snmpOutPktsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to snmpOutPkts with object is {snmp 2} in RFC1213.!!;
                DESCRIPTION
                !!The total number of SNMP Messages which were passed from the SNMP
                protocol entity to the transport service.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 11 2};

snmpOutSetRequests      ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                snmpOutSetRequestsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attributes maps to snmpOutSetRequests with object id {snmp 27} in
                RFC1213.!!;
                DESCRIPTION
                !!The total number of SNMP Set-Request PDUs which have been generated by
                the SNMP protocol entity.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 11 27};
```

```
snmpOutTooBigs  ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                snmpOutTooBigsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to snmpOutTooBigs with object id {snmp 20} in RFC1213.!!;
                DESCRIPTION
                !!The total number of SNMP PDUs which were generated by the SNMP protocol
                entity and for which the value of the error-status field is `tooBig.'!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 11 20};

snmpOutTraps    ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                snmpOutTrapsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to snmpOutTraps with object id {snmp 29} in RFC1213.!!;
                DESCRIPTION
                !!The total number of SNMP Trap PDUs which have been generated by the
                SNMP protocol entity.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 11 29};

sysContact ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :displayString;
        BEHAVIOUR
                sysContactBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to sysContact with object id {system 4} in RFC1213.!!;
                DESCRIPTION
                !!The textual identification of the contact person for this managed node, together
                with information on how to contact this person.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 1 4};

sysDescr ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :displayString;
        BEHAVIOUR
                sysDescrBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to sysDescr with object id {system 1} in RFC1213.!!;
                DESCRIPTION
                !!A textual description of the entity. This value should include the full name and
                version identification of the system's hardware type, software operating-system,
```

```
                and networking software. It is mandatory that this only contain printable ASCII
                characters.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 1 1};

sysLocation     ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :displayString;
        BEHAVIOUR
                sysLocationBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to sysLocation with object id {system 6} in RFC 1213.!!;
                DESCRIPTION
                !!The physical location of this node (e.g., `telephone closet, 3rd floor').!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 1 6};

sysName         ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :displayString;
        BEHAVIOUR
                sysNameBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to sysName with object id {system 5} in RFC1213.!!;
                DESCRIPTION
                !!An administratively-assigned name for this managed node. By convention, this
                is the node's fully-qualified domain name.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 1 5};

sysObjectID     ATTRIBUTE
        WITH ATTRIBUTE SYNTAX  IIMCRFC12131354ASN1.ObjectIdentifier;
        MATCHES FOR  EQUALITY, ORDERING;
        BEHAVIOUR
                sysObjectIDBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to sysObjectID with object id {system 2} in RFC1213.!!;
                DESCRIPTION
                !!The vendor's authoritative identification of the network management subsystem
                contained in the entity. This value is allocated within the SMI enterprises subtree
                (1.3.6.1.4.1) and provides an easy and unambiguous means for determining
                `what kind of box' is being managed. For example, if vendor `Flintstones, Inc.'
                was assigned the subtree 1.3.6.1.4.1.4242, it could assign the identifier
                1.3.6.1.4.1.4242.1.1 to its `Fred Router'.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 1 2};

sysServices     ATTRIBUTE
        WITH ATTRIBUTE SYNTAX IIMCRFC12131354ASN1.Integer128;
        MATCHES FOR  EQUALITY, ORDERING;
```

```
        BEHAVIOUR
                sysServicesBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to sysServices with object id {system 7}.!!;
                DESCRIPTION
                !!A value which indicates the set of services that this entity primarily offers.

                The value is a sum. This sum initially takes the value zero, Then, for each layer,
                L, in the range 1 through 7, that this node performs transactions for, 2 raised to
                (L - 1) is added to the sum. For example, a node which performs primarily routing
                functions would have a value of 4 (2^(3-1)). In contrast, a node which is a host
                offering application services would have a value of 72 (2^(4-1) + 2^(7-1)). Note
                that in the context of the Internet suite of protocols, values should be calculated
                accordingly:

                layer                   functionality
                1                       physical (e.g., repeaters)
                2                       datalink/subnetwork (e.g., bridges)
                3                       internet (e.g., IP gateways)
                4                       end-to-end (e.g., IP hosts)
                7                       applications (e.g., mail relays)

                For systems including OSI protocols, layers 5 and 6 may also be counted.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 1 7};

sysUpTime       ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS}: timeTicks;
        BEHAVIOUR
                sysUpTimeBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to sysUpTime with object id {system 3} in RFC1213.!!;
                DESCRIPTION
                !!The time (in hundredths of a second) since the network management portion of
                the system was last re-initialized.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 1 3};

tcpActiveOpens ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                tcpActiveOpensBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to tcpActiveOpens with object id {tcp 5} in RFC1213.!!;
                DESCRIPTION
                !!The number of times TCP connections have made a direct transition to the
                SYN-SENT state from the CLOSED state!!;
                ENDPARSE!;;
```

```
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 6 5};

tcpAttemptFails  ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                tcpAttemptFailsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to tcpAttemptFails with object id {tcp 7} in RFC1213.!!;
                DESCRIPTION
                !!The number of times TCP connections have made a direct transition to the
                CLOSED state from either the SYN-SENT state or the SYN-RCVD state, plus
                the number of times TCP connections have made a direct transition to the
                LISTEN state from the SYN-RCVD state.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 6 7};

tcpConnEntryId ATTRIBUTE
        WITH ATTRIBUTE SYNTAX IIMCRFC12131354ASN1.TcpConnEntryIdValue;
        MATCHES FOR     EQUALITY;
        BEHAVIOUR
                tcpConnEntryIdBehaviour BEHAVIOUR
                DEFINED AS
                !The naming attribute for object class tcpConnEntry.!;;
REGISTERED AS {iimcAutoName 1 3 6 1 2 1 6 13 1};

tcpConnLocalAddress ATTRIBUTE
        DERIVED FROM   {iimcIIMCIMIBTRANS}:ipAddress;
        BEHAVIOUR
                tcpConnLocalAddressBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to tcpConnLocalAddress with object id {tcpConnEntry 2} in
                RFC1213.!!;
                DESCRIPTION
                !!The local IP address for this TCP connection. In the case of a connection in the
                listen state which is willing to accept connections for any IP interface associated
                with the node, the value 0.0.0.0 is used.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 6 13 1 2};

tcpConnLocalPort ATTRIBUTE
   WITH ATTRIBUTE SYNTAX IIMCRFC12131354ASN1.Integer64k;
   MATCHES FOR     EQUALITY, ORDERING;
   BEHAVIOUR
                tcpConnLocalPortBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to tcpConnLocalPort with object id {tcpConnEntry 3} in
                RFC1213.!!;
                DESCRIPTION
```

```
                !!The local port number for this TCP connection.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 6 13 1 3};

tcpConnRemAddress ATTRIBUTE
   DERIVED FROM   {iimcIIMCIMIBTRANS}:ipAddress;
   BEHAVIOUR
                tcpConnRemAddressBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to tcpConnRemAddress with object id {tcpConnEntry 4} in
                RFC1213.!!;
                DESCRIPTION
                !!The remote IP address for this TCP connection.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 6 13 1 4};

tcpConnRemPort  ATTRIBUTE
        WITH ATTRIBUTE SYNTAX IIMCRFC12131354ASN1.Integer64k;
        MATCHES FOR     EQUALITY, ORDERING;
        BEHAVIOUR
                tcpConnRemPortBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to tcpConnRemPort with object id {tcpConnEntry 5} in
                RFC1213.!!;
                DESCRIPTION
                !!The remote port number for this TCP connection.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 6 13 1 5};

tcpConnState ATTRIBUTE
        WITH ATTRIBUTE SYNTAX IIMCRFC12131354ASN1.TcpConnState;
        MATCHES FOR     EQUALITY, ORDERING;
        BEHAVIOUR
                tcpConnStateBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to tcpConnState with object id {tcpConnEntry 1} in
                RFC1213.!!;
                DESCRIPTION
                !!The state of this TCP connection. The only value which may be set by a
                management station is deleteTCB(12). Accordingly, it is appropriate for an agent
                to return a `badValue' response if a management station attempts to set this
                attribute to any other value. If a management station sets this attribute to the
                value deleteTCB(12), then this has the effect of deleting the TCB (as defined in
                RFC 793) of the corresponding connection on the managed node, resulting in
                immediate termination of the connection. As an implementation-specific option, a
                RST segment may be sent from the managed node to the other TCP endpoint
                (note however that RST segments are not sent reliably).!!;
                ENDPARSE!;;
```

```
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 6 13 1 1};

tcpCurrEstab ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS}: gauge32;
        BEHAVIOUR
                tcpCurrEstabBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to tcpCurrEstab with object id {tcp 9} in RFC1213.!!;
                DESCRIPTION
                !!The number of TCP connections for which the current state is either
                ESTABLISHED or CLOSE-WAIT.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 6 9};

tcpEstabResets ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                tcpEstabResetsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to tcpEstabResets with object id {tcp 8} in RFC1213.!!;
                DESCRIPTION
                !!The number of times TCP connections have made a direct transition to the
                CLOSED state from either the ESTABLISHED state or the CLOSE-WAIT
                state.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 6 8};

tcpId ATTRIBUTE
        WITH ATTRIBUTE SYNTAX IIMCRFC12131354ASN1.TcpIdValue;
        MATCHES FOR     EQUALITY;
        BEHAVIOUR
                tcpIdBehaviour BEHAVIOUR
                DEFINED AS
                !The naming attribute for object class tcp.!;;
REGISTERED AS {iimcAutoName 1 3 6 1 2 1 6};

tcpInErrs ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                tcpInErrsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to tcpInErrs with object id {tcp 14} in RFC1213.!!;
                DESCRIPTION
                !!The total number of segments received in error (e.g., bad TCP checksums).!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 6 14};

tcpInSegs ATTRIBUTE
```

```
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                tcpInSegsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to tcpInSegs with object id {tcp 10} in RFC1213.!!;
                DESCRIPTION
                !!The total number of segments received, including those received in error. This
                count includes segments received on currently established connections.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 6 10};

tcpMaxConn ATTRIBUTE
        WITH ATTRIBUTE SYNTAX  IIMCRFC12131354ASN1.Integer;
        MATCHES FOR      EQUALITY, ORDERING;
        BEHAVIOUR
                tcpMaxConnBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to tcpMaxConn with object id {tcp 4} in RFC1213.!!;
                DESCRIPTION
                !!The limit on the total number of TCP connections the entity can support. In
                entities where the maximum number of connections is dynamic, this attribute
                should contain the value -1.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 6 4};

tcpOutRsts ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                tcpOutRstsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to tcpOutRsts with object id {tcp 15} in RFC1213.!!;
                DESCRIPTION
                !!The number of TCP segments sent containing the RST flag.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 6 15};

tcpOutSegs ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                tcpOutSegsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to tcpOutSegs with object id {tcp 11} in RFC1213.!!;
                DESCRIPTION
                !!The total number of segments sent, including those on current connections but
                excluding those containing only retransmitted octets.!!;
                ENDPARSE!;;
```

```
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 6 11};

tcpPassiveOpens  ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                tcpPassiveOpensBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to tcpPassiveOpens with object id {tcp 6} in RFC1213.!!;
                DESCRIPTION
                !!The number of times TCP connections have made a direct transition to the
                SYN-RCVD state from the LISTEN state.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 6 6};

tcpRetransSegs ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                tcpRetransSegsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to tcpRetransSegs with object id {tcp 12} in RFC1213.!!;
                DESCRIPTION
                !!The total number of segments retransmitted - that is, the number of TCP
                segments transmitted containing one or more previously transmitted octets.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 6 12};

tcpRtoAlgorithm ATTRIBUTE
        WITH ATTRIBUTE SYNTAX  IIMCRFC12131354ASN1.TcpRtoAlgorithm;
        MATCHES FOR      EQUALITY, ORDERING;
        BEHAVIOUR
                tcpRtoAlgorithmBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to tcpRtoAlgorithm with object id {tcp 1} in RFC1213.!!;
                DESCRIPTION
                !!The algorithm used to determine the timeout value used for retransmitting
                unacknowledged octets.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 6 1};

tcpRtoMax  ATTRIBUTE
   WITH ATTRIBUTE SYNTAX  IIMCRFC12131354ASN1.Integer;
        MATCHES FOR      EQUALITY, ORDERING;
        BEHAVIOUR
                tcpRtoMaxBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to tcpRtoMax with object id {tcp 3} in RFC1213.!!;
```

```
                DESCRIPTION
                !!The maximum value permitted by a TCP implementation for the retransmission
                timeout, measured in milliseconds. More refined semantics for attributes of this
                type depend upon the algorithm used to determine the retransmission timeout. In
                particular, when the timeout algorithm is rsre(3), an attribute of this type has the
                semantics of the UBOUND quantity described in RFC 793.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 6 3};

tcpRtoMin ATTRIBUTE
        WITH ATTRIBUTE SYNTAX  IIMCRFC12131354ASN1.Integer;
        MATCHES FOR      EQUALITY, ORDERING;
        BEHAVIOUR
                tcpRtoMinBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to tcpRtoMin with object id {tcp 2} in RFC1213.!!;
                DESCRIPTION
                !!The minimum value permitted by a TCP implementation for the retransmission
                timeout, measured in milliseconds. More refined semantics for attributes of this
                type depend upon the algorithm used to determine the retransmission timeout. In
                particular, when the timeout algorithm is rsre(3), an attribute of this type has the
                semantics of the LBOUND quantity described in RFC 793.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 6 2};

udpEntryId ATTRIBUTE
        WITH ATTRIBUTE SYNTAX IIMCRFC12131354ASN1.UdpEntryIdValue;
        MATCHES FOR      EQUALITY;
        BEHAVIOUR
                udpEntryIdBehaviour BEHAVIOUR
                DEFINED AS
                !The naming attribute for object class udpEntry.!;;
REGISTERED AS {iimcAutoName 1 3 6 1 2 1 7 5 1};

udpId ATTRIBUTE
        WITH ATTRIBUTE SYNTAX   IIMCRFC12131354ASN1.UdpIdValue;
        MATCHES FOR      EQUALITY;
        BEHAVIOUR
                udpIdBehaviour BEHAVIOUR
                DEFINED AS
                !The naming attribute for object class udp.!;;
REGISTERED AS {iimcAutoName 1 3 6 1 2 1 7};

udpInDatagrams ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                udpInDatagramsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to udpInDatagrams with object id {udp 1} in RFC1213.!!;
                DESCRIPTION
```

```
                !!The total number of UDP datagrams delivered to UDP users.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 7 1};

udpInErrors ATTRIBUTE
   DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                udpInErrorsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to udpInErrors with object id {udp 3} in RFC1213.!!;
                DESCRIPTION
                !!The number of received UDP datagrams that could not be delivered for reasons
                other than the lack of an application at the destination port.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 7 3};

udpLocalAddress ATTRIBUTE
        DERIVED FROM   {iimcIIMCIMIBTRANS}:ipAddress;
        BEHAVIOUR
                udpLocalAddressBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to udpLocalAddress with object id {udpEntry 1} in
                RFC1213.!!;
                DESCRIPTION
                !!The local IP address for this UDP listener. In the case of a UDP listener which
                is willing to accept datagrams for any IP interface associated with the node, the
                value 0.0.0.0 is used.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 7 5 1 1};

udpLocalPort ATTRIBUTE
   WITH ATTRIBUTE SYNTAX   IIMCRFC12131354ASN1.Integer64k;
        MATCHES FOR      EQUALITY, ORDERING;
        BEHAVIOUR
                udpLocalPortBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to udpLocalPort with object id {udpEntry 2} in RFC 1213.!!;
                DESCRIPTION
                !!The local port number for this UDP listener.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 7 5 1 2};

udpNoPorts ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                udpNoPortsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
```

```
                REFERENCE
                !!This attribute maps to udpNoPorts with object id {udp 2} in RFC1213.!!;
                DESCRIPTION
                !!The total number of received UDP datagrams for which there was no
                application at the destination port.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 7 2};

udpOutDatagrams ATTRIBUTE
        DERIVED FROM {iimcIIMCIMIBTRANS} :counter32;
        BEHAVIOUR
                udpOutDatagramsBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                REFERENCE
                !!This attribute maps to udpOutDatagrams with object id {udp 4} in RFC1213.!!;
                DESCRIPTION
                !!The total number of UDP datagrams sent from this entity.!!;
                ENDPARSE!;;
REGISTERED AS {iimcAutoObjAndAttr 1 3 6 1 2 1 7 4};
```

-- 2.1.3 IIMCMIB-II Name Bindings

```
at-systemNB  NAME BINDING
        SUBORDINATE OBJECT CLASS     at   AND SUBCLASSES ;
        NAMED BY SUPERIOR OBJECT CLASS
                "Rec. X.721 | ISO/IEC 10165-2 : 1992" :system
                AND SUBCLASSES;
        WITH ATTRIBUTE  atId;
        BEHAVIOUR
        at-systemNBBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                INDEX  NULL;
                ENDPARSE!;;
REGISTERED AS {iimcAutoNameBinding 1 3 6 1 2 1 3 };

atEntry-atNB  NAME BINDING
        SUBORDINATE OBJECT CLASS     atEntry   AND SUBCLASSES ;
        NAMED BY SUPERIOR OBJECT CLASS  at   AND SUBCLASSES;
        WITH ATTRIBUTE  atEntryId;
        BEHAVIOUR
                atEntry-atNBBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                INDEX  RFC1213-MIB.atIfIndex,
                        RFC1213-MIB.atNetAddress;
                DELETEATT atPhysAddress;
                DELETEVALUE "h;
                ENDPARSE!;;
        CREATE          WITH-AUTOMATIC-INSTANCE-NAMING,
                        WITH-REFERENCE-OBJECT;
```

```
        DELETE          DELETES-CONTAINED-OBJECTS;
REGISTERED AS {iimcAutoNameBinding 1 3 6 1 2 1 3 1 1};

egp-systemNB  NAME BINDING
        SUBORDINATE OBJECT CLASS     egp AND SUBCLASSES;
        NAMED BY SUPERIOR OBJECT CLASS
                "Rec. X.721 | ISO/IEC 10165-2 : 1992" :system
                AND SUBCLASSES;
        WITH ATTRIBUTE  egpId;
        BEHAVIOUR
        egp-systemNBBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                INDEX  NULL;
                ENDPARSE!;;
REGISTERED AS {iimcAutoNameBinding 1 3 6 1 2 1 8 };

egpNeighEntry-egpNB  NAME BINDING
        SUBORDINATE OBJECT CLASS egpNeighEntry  AND SUBCLASSES;
        NAMED BY SUPERIOR OBJECT CLASS  egp  AND SUBCLASSES;
        WITH ATTRIBUTE egpNeighEntryId;
        BEHAVIOUR
                egpNeighEntry-egpNBBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                INDEX RFC1213-MIB.egpNeighAddr;
                ENDPARSE!;;
REGISTERED AS {iimcAutoNameBinding 1 3 6 1 2 1 8 5 1};

icmp-systemNB  NAME BINDING
        SUBORDINATE OBJECT CLASS     icmp  AND SUBCLASSES;
        NAMED BY SUPERIOR OBJECT CLASS
                "Rec. X.721 | ISO/IEC 10165-2 : 1992" :system
                AND SUBCLASSES;
        WITH ATTRIBUTE icmpId;
        BEHAVIOUR
        icmp-systemNBBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                INDEX  NULL;
                ENDPARSE!;;
REGISTERED AS {iimcAutoNameBinding 1 3 6 1 2 1 5 };

ifEntry-interfacesNB  NAME BINDING
        SUBORDINATE OBJECT CLASS     ifEntry AND SUBCLASSES;
        NAMED BY SUPERIOR OBJECT CLASS   interfaces AND SUBCLASSES;
        WITH ATTRIBUTE ifEntryId;
        BEHAVIOUR
                ifEntry-interfacesNBBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                INDEX RFC1213-MIB.ifIndex;
                ENDPARSE!;;
REGISTERED AS {iimcAutoNameBinding 1 3 6 1 2 1 2 2 1};
```

```
interfaces-systemNB  NAME BINDING
        SUBORDINATE OBJECT CLASS     interfaces AND SUBCLASSES;
        NAMED BY SUPERIOR OBJECT CLASS
                "Rec. X.721 | ISO/IEC 10165-2 : 1992" :system
                AND SUBCLASSES;
        WITH ATTRIBUTE interfacesId;
        BEHAVIOUR
        interfaces-systemNBBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                INDEX  NULL;
                ENDPARSE!;;
REGISTERED AS {iimcAutoNameBinding 1 3 6 1 2 1 2 };

internetSystem-systemNB  NAME BINDING
        SUBORDINATE OBJECT CLASS     internetSystem  AND SUBCLASSES;
        NAMED BY SUPERIOR OBJECT CLASS
                "Rec. X.721 | ISO/IEC 10165-2 : 1992" :system
                AND SUBCLASSES;
        WITH ATTRIBUTE internetSystemId;
        BEHAVIOUR
        internetSystem-systemNBBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                INDEX  NULL;
                ENDPARSE!;;
REGISTERED AS {iimcAutoNameBinding 1 3 6 1 2 1 1 };

ip-systemNB  NAME BINDING
        SUBORDINATE OBJECT CLASS     ip AND SUBCLASSES;
        NAMED BY SUPERIOR OBJECT CLASS
                "Rec. X.721 | ISO/IEC 10165-2 : 1992" :system
                AND SUBCLASSES;
        WITH ATTRIBUTE ipId;
        BEHAVIOUR
        ip-systemNBBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                INDEX  NULL;
                ENDPARSE!;;
REGISTERED AS {iimcAutoNameBinding 1 3 6 1 2 1 4};

ipAddrEntry-ipNB  NAME BINDING
        SUBORDINATE OBJECT CLASS     ipAddrEntry AND SUBCLASSES;
        NAMED BY SUPERIOR OBJECT CLASS  ip AND SUBCLASSES;
        WITH ATTRIBUTE ipAddrEntryId;
        BEHAVIOUR
                ipAddrEntry-ipNBBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                INDEX RFC1213-MIB.ipAdEntAddr;
                ENDPARSE!;;
REGISTERED AS {iimcAutoNameBinding 1 3 6 1 2 1 4 20 1};
```

```
ipForwardEntry-ipNB  NAME BINDING
        SUBORDINATE OBJECT CLASS     ipForwardEntry AND SUBCLASSES;
        NAMED BY SUPERIOR OBJECT CLASS  ip AND SUBCLASSES;
        WITH ATTRIBUTE ipForwardEntryId;
        BEHAVIOUR
                ipForwardEntry-ipNBBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                INDEX  RFC1354-MIB.ipForwardDest,
                        RFC1354-MIB.ipForwardProto,
                        RFC1354-MIB.ipForwardPolicy,
                        RFC1354-MIB.ipForwardNextHop;
                DELETEATT ipForwardType;
                DELETEVALUE 2;
                ENDPARSE!;;
        CREATE          WITH-AUTOMATIC-INSTANCE-NAMING,
                        WITH-REFERENCE-OBJECT;
        DELETE          DELETES-CONTAINED-OBJECTS;
REGISTERED AS {iimcAutoNameBinding 1 3 6 1 2 1 4 24 2  1};

ipNetToMediaEntry-ipNB  NAME BINDING
        SUBORDINATE OBJECT CLASS     ipNetToMediaEntry  AND SUBCLASSES;
        NAMED BY SUPERIOR OBJECT CLASS  ip  AND SUBCLASSES;
        WITH ATTRIBUTE ipNetToMediaEntryId;
        BEHAVIOUR
                ipNetToMediaEntry-ipNBBehaviour
                BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                INDEX  RFC1213-MIB.ipNetToMediaIfIndex,
                        RFC1213-MIB.ipNetToMediaNetAddress;
                DELETEATT ipNetToMediaType;
                DELETEVALUE 2;
                ENDPARSE!;;
        CREATE          WITH-AUTOMATIC-INSTANCE-NAMING,
                        WITH-REFERENCE-OBJECT;
        DELETE          DELETES-CONTAINED-OBJECTS;
REGISTERED AS {iimcAutoNameBinding 1 3 6 1 2 1 4 22 1};

ipRouteEntry-ipNB  NAME BINDING
        SUBORDINATE OBJECT CLASS     ipRouteEntry AND SUBCLASSES;
        NAMED BY SUPERIOR OBJECT CLASS  ip AND SUBCLASSES;
        WITH ATTRIBUTE ipRouteEntryId;
        BEHAVIOUR
                ipRouteEntry-ipNBBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                INDEX RFC1213-MIB.ipRouteDest;
                DELETEATT ipRouteType;
                DELETEVALUE 2;
                ENDPARSE!;;
        CREATE          WITH-AUTOMATIC-INSTANCE-NAMING,
                        WITH-REFERENCE-OBJECT;
```

```
        DELETE          DELETES-CONTAINED-OBJECTS;
REGISTERED AS {iimcAutoNameBinding 1 3 6 1 2 1 4 21 1};

snmp-systemNB  NAME BINDING
        SUBORDINATE OBJECT CLASS     snmp AND SUBCLASSES;
        NAMED BY SUPERIOR OBJECT CLASS
                "Rec. X.721 | ISO/IEC 10165-2 : 1992" :system
                AND SUBCLASSES;
        WITH ATTRIBUTE snmpId;
        BEHAVIOUR
        snmp-systemNBBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                INDEX  NULL;
                ENDPARSE!;;
REGISTERED AS {iimcAutoNameBinding 1 3 6 1 2 1 11};

tcp-systemNB  NAME BINDING
        SUBORDINATE OBJECT CLASS     tcp AND SUBCLASSES;
        NAMED BY SUPERIOR OBJECT CLASS
                "Rec. X.721 | ISO/IEC 10165-2 : 1992" :system
                AND SUBCLASSES;
        WITH ATTRIBUTE tcpId;
        BEHAVIOUR
        tcp-systemNBBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                INDEX  NULL;
                ENDPARSE!;;
REGISTERED AS {iimcAutoNameBinding 1 3 6 1 2 1 6 };

tcpConnEntry-tcpNB  NAME BINDING
        SUBORDINATE OBJECT CLASS     tcpConnEntry AND SUBCLASSES;
        NAMED BY SUPERIOR OBJECT CLASS  tcp AND SUBCLASSES;
        WITH ATTRIBUTE tcpConnEntryId;
        BEHAVIOUR
                tcpConnEntry-tcpNBBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                INDEX   RFC1213-MIB.tcpConnLocalAddress,
                        RFC1213-MIB.tcpConnLocalPort,
                        RFC1213-MIB.tcpConnRemAddress,
                        RFC1213-MIB.tcpConnRemPort;
                ENDPARSE!;;
REGISTERED AS {iimcAutoNameBinding 1 3 6 1 2 1 6 13 1};

udp-systemNB  NAME BINDING
        SUBORDINATE OBJECT CLASS     udp  AND SUBCLASSES;
        NAMED BY SUPERIOR OBJECT CLASS
                "Rec. X.721 | ISO/IEC 10165-2 : 1992" :system
                AND SUBCLASSES;
        WITH ATTRIBUTE udpId;
        BEHAVIOUR
        udp-systemNBBehaviour BEHAVIOUR
```

```
                DEFINED AS
                !BEGINPARSE
                INDEX  NULL;
                ENDPARSE!;;
REGISTERED AS {iimcAutoNameBinding 1 3 6 1 2 1 7};

udpEntry-udpNB  NAME BINDING
        SUBORDINATE OBJECT CLASS     udpEntry   AND SUBCLASSES;
        NAMED BY SUPERIOR OBJECT CLASS  udp  AND SUBCLASSES;
        WITH ATTRIBUTE udpEntryId;
        BEHAVIOUR
                udpEntry-udpNBBehaviour BEHAVIOUR
                DEFINED AS
                !BEGINPARSE
                INDEX  RFC1213-MIB.udpLocalAddress,
                        RFC1213-MIB.udpLocalPort;
                ENDPARSE!;;
REGISTERED AS {iimcAutoNameBinding 1 3 6 1 2 1 7 5 1};
```

-- 2.2 IIMCMIB-II ASN.1 MODULE

```
IIMCRFC12131354ASN1 {iso(1) member-body(2) 124 forum(360501) iimcAutoTrans(14)
iimcAutoModule(0) 1213 1354} DEFINITIONS IMPLICIT TAGS ::=
BEGIN
IMPORTS
                iimcAutoDocument, iimcAutoModule, iimcAutoObjAndAttr,
                iimcAutoNameBinding, iimcAutoName
                        FROM IimcAssignedOIDs
                        {iso(1) member-body(2) 124 forum(360501)
                        iimcManual(15) iimcModule(0) 1}
                Integer, Integer128, Integer64k, ObjectIdentifier
                        FROM IimcCommonDef
                        {iso(1) member-body(2) 124 forum(360501)
                        iimcManual(15) iimcModule(0) 2}
                IpAddress
                        FROM SNMPv2-SMI;

--  The following registration identifier is assigned to this document using procedures defined
--  in [19]:

iimcRFC12131354 OBJECT IDENTIFIER ::=  {iimcAutoDocument 1213 1354}

AtEntryIdValue ::=      SEQUENCE {
                                atIfIndex       [1] Integer,
                                atNetAddress    [2] IpAddress
                                }

AtIdValue       ::=     NULL

c-ipForwardMask                 IpAddress ::= '00000000'H
c-ipForwardIfIndex              Integer ::= 0
c-ipForwardType                 IPForwardType ::= 2 -- invalid
```

```
c-ipForwardAge                  Integer ::= 0
c-ipForwardInfo                 ObjectIdentifier ::= { 0 0 }
c-ipForwardNextHopAS            Integer ::= 0
c-ipForwardMetric1              Integer ::= -1
c-ipForwardMetric2              Integer ::= -1
c-ipForwardMetric3              Integer ::= -1
c-ipForwardMetric4              Integer ::= -1
c-ipForwardMetric5              Integer ::= -1

EgpIdValue      ::=     NULL

EgpNeighEntryIdValue  ::=       SEQUENCE {
                                egpNeighAddr   [1] IpAddress
                                }

EgpNeighEventTrigger            ::= INTEGER    {
                                               start(1),
                                               stop(2)
                                               }

EgpNeighMode    ::= INTEGER {
                            active(1),
                            passive(2)
                           }

EgpNeighState   ::= INTEGER   {
                            idle(1),
                            acquisition(2),
                            down(3),
                            up(4),
                            cease(5)
                            }

IcmpIdValue     ::=     NULL

IfAdminStatus   ::= INTEGER {
                      up(1),  -- ready to pass packets
                      down(2),
                      testing(3)  -- in some test mode
                       }

IfEntryIdValue ::=      SEQUENCE {
                                ifIndex             [1] Integer
                                }

IfOperStatus    ::= INTEGER     {
                                up(1),-- ready to pass packets
                                down(2),
                                testing(3)-- in some test mode
                                }

IfType ::=      INTEGER         {
                   other(1),  -- none of the following
                   regular1822(2),
```

```
                    hdh1822(3),
                    ddn-x25(4),
                    rfc877-x25(5),
                    ethernet-csmacd(6),
                    iso88023-csmacd(7),
                    iso88024-tokenBus(8),
                    iso88025-tokenRing(9),
                    iso88026-man(10),
                    starLan(11),
                    proteon-10Mbit(12),
                    proteon-80Mbit(13),
                    hyperchannel(14),
                    fddi(15),
                    lapb(16),
                    sdlc(17),
                    ds1(18),
                    e1(19),-- european equivalent of T-1
                    basicISDN(20),
                    primaryISDN(21),-- proprietary serial
                    propPointToPointSerial(22),
                    ppp(23),
                    softwareLoopback(24),
                    eon(25),  -- CLNP over IP
                    ethernet-3Mbit(26),
                    nsip(27),  -- XNS over IP
                    slip(28),  -- generic SLIP
                    ultra(29),  -- ULTRA technologies
                    ds3(30),  -- T-3
                    sip(31),  -- SMDS
                    frame-relay(32)
                    }

InterfacesIdValue ::=     NULL

InternetSystemIdValue ::=   NULL

IpAddrEntryIdValue ::=  SEQUENCE {
                                ipAdEntAddr     [1] IpAddress
                                }

IpForwardEntryIdValue ::=
                                SEQUENCE {
                                ipForwardDest           [1] IpAddress,
                                ipForwardProto          [2] IpForwardProto,
                                ipForwardPolicy         [3] Integer,
                                ipForwardNextHop        [4] IpAddress
                                }

IpForwarding    ::= INTEGER     {
                                forwarding(1),-- acting as a gateway
                                not-forwarding(2)-- NOT acting as a gateway
                                }

IpForwardType ::= INTEGER {
```

```
                        other    (1), -- not specified by this MIB
                        invalid  (2), -- logically deleted
                        local    (3), -- local interface
                        remote   (4)  -- remote destination
                        }


IpForwardProto ::=  INTEGER {
                other     (1),  -- not specified
                local     (2),  -- local interface
                netmgmt   (3),  -- static route
                icmp      (4),  -- result of ICMP Redirect
                                -- the following are all dynamic
                                -- routing protocols
                egp       (5), -- Exterior Gateway Protocol
                ggp       (6),  -- Gateway-Gateway Protocol
                hello     (7),  -- FuzzBall HelloSpeak
                rip       (8),  -- Berkeley RIP or RIP-II
                is-is     (9),  -- Dual IS-IS
                es-is     (10), -- ISO 9542
                ciscoIgrp (11), -- Cisco IGRP
                bbnSpfIgp (12), -- BBN SPF IGP
                ospf      (13), -- Open Shortest Path First
                bgp       (14), -- Border Gateway Protocol
                idpr      (15) -- InterDomain Policy Routing
        }

IpIdValue ::=     NULL

IpNetToMediaEntryIdValue ::=
                                SEQUENCE {
                                ipNetToMediaIfIndex             [1] Integer,
                                ipNetToMediaNetAddress          [2] IpAddress
                                        }

IpNetToMediaType ::= INTEGER {
                    other(1),  -- none of the following
                    invalid(2),-- an invalidated mapping
                    dynamic(3),
                    static(4)
                            }

IpRouteEntryIdValue ::=SEQUENCE {
                                        ipRouteDest     [1] IpAddress
                                        }

IpRouteProto    ::= INTEGER     {
                    other(1),       -- none of the following
                    local(2),       -- configured entries
                    netmgmt(3),     -- mgmt protocol
                    icmp(4),        -- obtained via ICMP,
                                    -- e.g., redirect
                    egp(5),
                    ggp(6),
```

```
                    hello(7),
                    rip(8),
                    is-is(9),
                    es-is(10),
                    ciscoIgrp(11),
                    bbnSpfIgp(12),
                    ospf(13),
                    bgp(14)
                     }

IpRouteType     ::= INTEGER    {
                    other(1),       -- none of the following
                    invalid(2),     -- an invalidated route
                    direct(3),      -- route to directly connected subnetwork
                    indirect(4)     -- route to a non-local host/network/subnet
                          }


SnmpEnableAuthenTraps ::= INTEGER          {
                                           enabled          (1),
                                           disabled         (2)
                                           }

SnmpIdValue ::=          NULL

TcpConnEntryIdValue ::=
                                  SEQUENCE {
                                  tcpConnLocalAddress          [1] IpAddress,
                                  tcpConnLocalPort             [2] Integer64k,
                                  tcpConnRemoteAddress         [3] IpAddress,
                                  tcpConnRemotePort            [4] Integer64k
                                  }

TcpConnState    ::= INTEGER {
                                  closed(1),
                                  listen(2),
                                  synSent(3),
                                  synReceived(4),
                                  established(5),
                                  finWait1(6),
                                  finWait2(7),
                                  closeWait(8),
                                  lastAck(9),
                                  closing(10),
                                  timeWait(11),
                                  deleteTCP(12) }

TcpIdValue ::=  NULL

TcpRtoAlgorithm  ::= INTEGER {
                      other(1),     -- none of the following
                      constant(2), -- a constant rto
                      rsre(3),      -- MIL-STD-1778, Appendix B
                      vanj(4)       -- Van Jacobsons alg.
```

```
                        }

UdpEntryIdValue ::=     SEQUENCE {
                                udpLocalAddress         [1] IpAddress,
                                udpLocalPort            [2] Integer64k
                                }

UdpIdValue ::=  NULL

END
```

3. CONFORMANCE

An implementation claiming conformance to the translated ISO/CCITT GDMO MIB-II {iimcRFC12131354} shall conform to the all of the requirements stated in the corresponding MOCS proforma specified by Annex A.

ANNEX A (NORMATIVE): MANAGED OBJECT CONFORMANCE STATEMENTS (MOCS)

A.1 AT [{IIMCRFC12131354}]

Table A.1.1 at 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	at	{1 2 124 360501 14 1 1 3 6 1 2 1 3}		

Table A.1.2 at PACKAGES

Index	Package template label	Value of object identifier for package	Constraints and values	Status	Support	Additional information
1	"Rec. X.721 | ISO/IEC 10165-2 : 1992": allomorphicPackage	{2 9 3 2 4 17}	"if an object supports allomorphism"	o		
2	atPkg		Mandatory	m		
3	"Rec. X.721 | ISO/IEC 10165-2 : 1992": packagesPackage	{2 9 3 2 4 16}	"any registered package, other than this package has been instantiated"	c1		
4	"Rec. X.721 | ISO/IEC 10165-2 : 1992": topPackage		Mandatory	m		

Table A.1.3 at Attribute support

				Set by create		Get		Replace		Add		Remove		Set to default		
Index	Attribute template label	Value of object identifier for attribute	Constraints and values	Status	Support	Status	Support	Status	Support	Status	Support	Status	Support	Status	Support	Additional information
1	"Rec. X.721 | ISO/IEC 10165-2 : 1992": allomorphs	{2 9 3 2 7 50}	SET OF ObjectClass	-		o		-		-		-		-		
2	atId	{1 2 124 360501 14 15 1 3 6 1 2 1 3}	NULL	m		m		-		-		-		-		
3	"Rec. X.721 | ISO/IEC 10165-2 : 1992": nameBinding	{2 9 3 2 7 63}	OBJECT IDENTIFIER	o		m		-		-		-		-		
4	"Rec. X.721 | ISO/IEC 10165-2 : 1992": objectClass	{2 9 3 2 7 65}	ObjectClass	-		m		-		-		-		-		
5	"Rec. X.721 | ISO/IEC 10165-2 : 1992": packages	{2 9 3 2 7 66}	SET OF OBJECT IDENTIFIER	o		c1		-		-		-		-		

Table A.1.4 at Attribute group support

There are no attribute groups specified for this managed object class.

Table A.1.5 at Action support

There are no actions specified for this managed object class.

Table A.1.6 at Notification support

There are no notifications specified for this managed object class.

Table A.1.7 at Parameter support

There are no parameters specified for this managed object class.

Table A.1.8 at Conditions

Condition number	Condition	Reference
c1	IF "any registered package, other than this package has been instantiated" THEN m ELSE -	A.1.2/3

Table A.1.9 at Name Binding support

Index	Name binding template label	Value of object identifier for name binding	Contraints and values	Status	Support	Additional information	Subindex	Operation	Constraints and values	Status	Support	Additional information
1	at-systemNB	{1 2 124 360501 14 4 1 3 6 1 2 1 3}	Superior class: "Rec. X.721 | ISO/IEC 10165-2 : 1992": Superior class: system AND SUBCLASSES	o			1.1	Create support		-		
							1.2	Create with reference object		-		
							1.3	Create with automatic instance naming		-		
							1.4	Delete support		-		
							1.5	Delete only if no contained objects		c:m		
							1.6	Delete contained objects		c:x		

A.2 ATENTRY [{IIMCRFC12131354}]

Table A.2.1 atEntry 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	atEntry	{1 2 124 360501 14 1 1 3 6 1 2 1 3 1 1}		

Table A.2.2 atEntry PACKAGES

Index	Package template label	Value of object identifier for package	Constraints and values	Status	Support	Additional information
1	"Rec. X.721 | ISO/IEC 10165-2 : 1992": allomorphicPackage	{2 9 3 2 4 17}	"if an object supports allomorphism"	o		
2	atEntryPkg		Mandatory	m		
3	"Rec. X.721 | ISO/IEC 10165-2 : 1992": packagesPackage	{2 9 3 2 4 16}	"any registered package, other than this package has been instantiated"	c1		
4	"Rec. X.721 | ISO/IEC 10165-2 : 1992": topPackage		Mandatory	m		

Table A.2.3 atEntry Attribute support

				Set by create		Get		Replace		Add		Remove		Set to default		
Index	Attribute template label	Value of object identifier for attribute	Constraints and values	Status	Support	Status	Support	Status	Support	Status	Support	Status	Support	Status	Support	Additional information
1	"Rec. X.721 | ISO/IEC 10165-2 : 1992": allomorphs	{2 9 3 2 7 50}	SET OF ObjectClass	-		o		-		-		-		-		
2	atEntryId	{1 2 124 360501 14 15 1 3 6 1 2 1 3 1 1}	SEQUENCE	m		m		-		-		-		-		
3	atIfIndex	{1 2 124 360501 14 1 1 3 6 1 2 1 3 1 1 1}	INTEGER	m		m		-		-		-		-		
4	atNetAddress	{1 2 124 360501 14 1 1 3 6 1 2 1 3 1 1 3}		m		m		-		-		-		-		
5	atPhysAddress	{1 2 124 360501 14 1 1 3 6 1 2 1 3 1 1 2}		m		m		m		-		-		-		
6	"Rec. X.721 | ISO/IEC 10165-2 : 1992": nameBinding	{2 9 3 2 7 63}	OBJECT IDENTIFIER	o		m		-		-		-		-		
7	"Rec. X.721 | ISO/IEC 10165-2 : 1992": objectClass	{2 9 3 2 7 65}	ObjectClass	-		m		-		-		-		-		
8	"Rec. X.721 | ISO/IEC 10165-2 : 1992": packages	{2 9 3 2 7 66}	SET OF OBJECT IDENTIFIER	o		c1		-		-		-		-		

Table A.2.4 atEntry Attribute group support

There are no attribute groups specified for this managed object class.

Table A.2.5 atEntry Action support

There are no actions specified for this managed object class.

Table A.2.6 atEntry Notification support

There are no notifications specified for this managed object class.

Table A.2.7 atEntry Parameter support

There are no parameters specified for this managed object class.

Table A.2.8 atEntry Conditions

Condition number	Condition	Reference
c1	IF "any registered package, other than this package has been instantiated" THEN m ELSE -	A.2.2/3

Table A.2.9 atEntry Name Binding support

Index	Name binding template label	Value of object identifier for name binding	Contraints and values	Status	Support	Additional information	Subindex	Operation	Constraints and values	Status	Support	Additional information
1	atEntry-atNB	{1 2 124 360501 14 4 1 3 6 1 2 1 3 1 1}	Superior class: at AND SUBCLASSES	o			1.1	Create support		c:m		
							1.2	Create with reference object		c:m		
							1.3	Create with automatic instance naming		c:m		
							1.4	Delete support		c:m		
							1.5	Delete only if no contained objects		c:x		
							1.6	Delete contained objects		c:m		

A.3 EGP [{IIMCRFC12131354}]

Table A.3.1 egp 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	egp	{1 2 124 360501 14 1 1 3 6 1 2 1 8}		

Table A.3.2 egp PACKAGES

Index	Package template label	Value of object identifier for package	Constraints and values	Status	Support	Additional information
1	"Rec. X.721 | ISO/IEC 10165-2 : 1992": allomorphicPackage	{2 9 3 2 4 17}	"if an object supports allomorphism"	o		
2	egpPkg		Mandatory	m		
3	"Rec. X.721 | ISO/IEC 10165-2 : 1992": packagesPackage	{2 9 3 2 4 16}	"any registered package, other than this package has been instantiated"	c1		
4	"Rec. X.721 | ISO/IEC 10165-2 : 1992": topPackage		Mandatory	m		

Table A.3.3 egp Attribute support

				Set by create		Get		Replace		Add		Remove		Set to default		
Index	Attribute template label	Value of object identifier for attribute	Constraints and values	Status	Support	Status	Support	Status	Support	Status	Support	Status	Support	Status	Support	Additional information
1	"Rec. X.721 | ISO/IEC 10165-2 : 1992": allomorphs	{2 9 3 2 7 50}	SET OF ObjectClass	-		o		-		-		-		-		
2	egpAs	{1 2 124 360501 14 1 1 3 6 1 2 1 8 6}	INTEGER	m		m		-		-		-		-		
3	egpId	{1 2 124 360501 14 15 1 3 6 1 2 1 8}	NULL	m		m		-		-		-		-		
4	egpInErrors	{1 2 124 360501 14 1 1 3 6 1 2 1 8 2}		m		m		-		-		-		-		
5	egpInMsgs	{1 2 124 360501 14 1 1 3 6 1 2 1 8 1}		m		m		-		-		-		-		
6	egpOutErrors	{1 2 124 360501 14 1 1 3 6 1 2 1 8 4}		m		m		-		-		-		-		
7	egpOutMsgs	{1 2 124 360501 14 1 1 3 6 1 2 1 8 3}		m		m		-		-		-		-		
8	"Rec. X.721 | ISO/IEC 10165-2 : 1992": nameBinding	{2 9 3 2 7 63}	OBJECT IDENTIFIER	o		m		-		-		-		-		
9	"Rec. X.721 | ISO/IEC 10165-2 : 1992": objectClass	{2 9 3 2 7 65}	ObjectClass	-		m		-		-		-		-		
10	"Rec. X.721 | ISO/IEC 10165-2 : 1992": packages	{2 9 3 2 7 66}	SET OF OBJECT IDENTIFIER	o		c1		-		-		-		-		

Table A.3.4 egp Attribute group support

There are no attribute groups specified for this managed object class.

Table A.3.5 egp Action support

There are no actions specified for this managed object class.

Table A.3.6 egp Notification support

There are no notifications specified for this managed object class.

Table A.3.7 egp Parameter support

There are no parameters specified for this managed object class.

Table A.3.8 egp Conditions

Condition number	Condition	Reference
c1	IF "any registered package, other than this package has been instantiated" THEN m ELSE -	A.3.2/3

Table A.3.9 egp Name Binding support

Index	Name binding template label	Value of object identifier for name binding	Contraints and values	Status	Support	Additional information	Subindex	Operation	Constraints and values	Status	Support	Additional information
1	egp-systemNB	{1 2 124 360501 14 4 1 3 6 1 2 1 8}	Superior class: "Rec. X.721 | ISO/IEC 10165-2 : 1992": Superior class: system AND SUBCLASSES	o			1.1	Create support		-		
							1.2	Create with reference object		-		
							1.3	Create with automatic instance naming		-		
							1.4	Delete support		-		
							1.5	Delete only if no contained objects		c:m		
							1.6	Delete contained objects		c:x		

A.4 EGPNEIGHENTRY [{IIMCRFC12131354}]

Table A.4.1 egpNeighEntry 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	egpNeighEntry	{1 2 124 360501 14 1 1 3 6 1 2 1 8 5 1}		

Table A.4.2 egpNeighEntry PACKAGES

Index	Package template label	Value of object identifier for package	Constraints and values	Status	Support	Additional information
1	"Rec. X.721 | ISO/IEC 10165-2 : 1992": allomorphicPackage	{2 9 3 2 4 17}	"if an object supports allomorphism"	o		
2	egpNeighEntryPkg		Mandatory	m		
3	"Rec. X.721 | ISO/IEC 10165-2 : 1992": packagesPackage	{2 9 3 2 4 16}	"any registered package, other than this package has been instantiated"	c1		
4	"Rec. X.721 | ISO/IEC 10165-2 : 1992": topPackage		Mandatory	m		

Table A.4.3 egpNeighEntry Attribute support

				Set by create		Get		Replace		Add		Remove		Set to default		
Index	Attribute template label	Value of object identifier for attribute	Constraints and values	Status	Support	Status	Support	Status	Support	Status	Support	Status	Support	Status	Support	Additional information
1	"Rec. X.721 | ISO/IEC 10165-2 : 1992": allomorphs	{2 9 3 2 7 50}	SET OF ObjectClass	-		o		-		-		-		-		
2	egpNeighAddr	{1 2 124 360501 14 1 1 3 6 1 2 1 8 5 1 2}		m		m		-		-		-		-		
3	egpNeighAs	{1 2 124 360501 14 1 1 3 6 1 2 1 8 5 1 3}	INTEGER	m		m		-		-		-		-		
4	egpNeighEntryId	{1 2 124 360501 14 15 1 3 6 1 2 1 8 5 1}	SEQUENCE	m		m		-		-		-		-		
5	egpNeighEventTrigger	{1 2 124 360501 14 1 1 3 6 1 2 1 8 5 1 15}	INTEGER	m		m		m		-		-		-		
6	egpNeighInErrMsgs	{1 2 124 360501 14 1 1 3 6 1 2 1 8 5 1 8}		m		m		-		-		-		-		
7	egpNeighInErrs	{1 2 124 360501 14 1 1 3 6 1 2 1 8 5 1 5}		m		m		-		-		-		-		
8	egpNeighInMsgs	{1 2 124 360501 14 1 1 3 6 1 2 1 8 5 1 4}		m		m		-		-		-		-		
9	egpNeighIntervalHello	{1 2 124 360501 14 1 1 3 6 1 2 1 8 5 1 12}	INTEGER	m		m		-		-		-		-		
10	egpNeighIntervalPoll	{1 2 124 360501 14 1 1 3 6 1 2 1 8 5 1 13}	INTEGER	m		m		-		-		-		-		
11	egpNeighMode	{1 2 124 360501 14 1 1 3 6 1 2 1 8 5 1 14}	INTEGER	m		m		-		-		-		-		
12	egpNeighOutErrMsgs	{1 2 124 360501 14 1 1 3 6 1 2 1 8 5 1 9}		m		m		-		-		-		-		
13	egpNeighOutErrs	{1 2 124 360501 14 1 1 3 6 1 2 1 8 5 1 7}		m		m		-		-		-		-		
14	egpNeighOutMsgs	{1 2 124 360501 14 1 1 3 6 1 2 1 8 5 1 6}		m		m		-		-		-		-		
15	egpNeighState	{1 2 124 360501 14 1 1 3 6 1 2 1 8 5 1 1}	INTEGER	m		m		-		-		-		-		

16	egpNeighStateDowns	{1 2 124 360501 14 1 1 3 6 1 2 1 8 5 1 11}		m		m		-		-		-		-		
17	egpNeighStateUps	{1 2 124 360501 14 1 1 3 6 1 2 1 8 5 1 10}		m		m		-		-		-		-		
18	"Rec. X.721 | ISO/IEC 10165-2 : 1992": nameBinding	{2 9 3 2 7 63}	OBJECT IDENTIFIER	o		m		-		-		-		-		
19	"Rec. X.721 | ISO/IEC 10165-2 : 1992": objectClass	{2 9 3 2 7 65}	ObjectClass	-		m		-		-		-		-		
20	"Rec. X.721 | ISO/IEC 10165-2 : 1992": packages	{2 9 3 2 7 66}	SET OF OBJECT IDENTIFIER	o		c1		-		-		-		-		

Table A.4.4 egpNeighEntry Attribute group support

There are no attribute groups specified for this managed object class.

Table A.4.5 egpNeighEntry Action support

There are no actions specified for this managed object class.

Table A.4.6 egpNeighEntry Notification support

There are no notifications specified for this managed object class.

Table A.4.7 egpNeighEntry Parameter support

There are no parameters specified for this managed object class.

Table A.4.8 egpNeighEntry Conditions

Condition number	Condition	Reference
c1	IF "any registered package, other than this package has been instantiated" THEN m ELSE -	A.4.2/3

Table A.4.9 egpNeighEntry Name Binding support

Index	Name binding template label	Value of object identifier for name binding	Contraints and values	Status	Support	Additional information	Subindex	Operation	Constraints and values	Status	Support	Additional information
1	egpNeighEntry-egpNB	{1 2 124 360501 14 4 1 3 6 1 2 1 8 5 1}	Superior class: egp AND SUBCLASSES	o			1.1	Create support		-		
							1.2	Create with reference object		-		
							1.3	Create with automatic instance naming		-		
							1.4	Delete support		-		
							1.5	Delete only if no contained objects		c:m		
							1.6	Delete contained objects		c:x		

A.5 ICMP [{IIMCRFC12131354}]

Table A.5.1 icmp 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 t which conformance is claimed? (Y/N)
1	icmp	{1 2 124 360501 14 1 1 3 6 1 2 1 5}		

Table A.5.2 icmp PACKAGES

Index	Package template label	Value of object identifier for package	Constraints and values	Status	Support	Additional information
1	"Rec. X.721 | ISO/IEC 10165-2 : 1992": allomorphicPackage	{2 9 3 2 4 17}	"if an object supports allomorphism"	o		
2	icmpPkg		Mandatory	m		
3	"Rec. X.721 | ISO/IEC 10165-2 : 1992": packagesPackage	{2 9 3 2 4 16}	"any registered package, other than this package has been instantiated"	c1		
4	"Rec. X.721 | ISO/IEC 10165-2 : 1992": topPackage		Mandatory	m		

Table A.5.3 icmp Attribute support

				Set by create		Get		Replace		Add		Remove		Set to default		
Index	Attribute template label	Value of object identifier for attribute	Constraints and values	Status	Support	Status	Support	Status	Support	Status	Support	Status	Support	Status	Support	Additional information
1	"Rec. X.721 | ISO/IEC 10165-2 : 1992": allomorphs	{2 9 3 2 7 50}	SET OF ObjectClass	-		o		-		-		-		-		
2	icmpId	{1 2 124 360501 14 15 1 3 6 1 2 1 5}	NULL	m		m		-		-		-		-		
3	icmpInAddrMaskReps	{1 2 124 360501 14 1 1 3 6 1 2 1 5 13}		m		m		-		-		-		-		
4	icmpInAddrMasks	{1 2 124 360501 14 1 1 3 6 1 2 1 5 12}		m		m		-		-		-		-		
5	icmpInDestUnreachs	{1 2 124 360501 14 1 1 3 6 1 2 1 5 3}		m		m		-		-		-		-		
6	icmpInEchoReps	{1 2 124 360501 14 1 1 3 6 1 2 1 5 9}		m		m		-		-		-		-		
7	icmpInEchos	{1 2 124 360501 14 1 1 3 6 1 2 1 5 8}		m		m		-		-		-		-		
8	icmpInErrors	{1 2 124 360501 14 1 1 3 6 1 2 1 5 2}		m		m		-		-		-		-		
9	icmpInMsgs	{1 2 124 360501 14 1 1 3 6 1 2 1 5 1}		m		m		-		-		-		-		
10	icmpInParmProbs	{1 2 124 360501 14 1 1 3 6 1 2 1 5 5}		m		m		-		-		-		-		
11	icmpInRedirects	{1 2 124 360501 14 1 1 3 6 1 2 1 5 7}		m		m		-		-		-		-		
12	icmpInSrcQuenchs	{1 2 124 360501 14 1 1 3 6 1 2 1 5 6}		m		m		-		-		-		-		
13	icmpInTimeExcds	{1 2 124 360501 14 1 1 3 6 1 2 1 5 4}		m		m		-		-		-		-		
14	icmpInTimestampReps	{1 2 124 360501 14 1 1 3 6 1 2 1 5 11}		m		m		-		-		-		-		
15	icmpInTimestamps	{1 2 124 360501 14 1 1 3 6 1 2 1 5 10}		m		m		-		-		-		-		
16	icmpOutAddrMaskReps	{1 2 124 360501 14 1 1 3 6 1 2 1 5 26}		m		m		-		-		-		-		
17	icmpOutAddrMasks	{1 2 124 360501 14 1 1 3 6 1 2 1 5 25}		m		m		-		-		-		-		
18	icmpOutDestUnreachs	{1 2 124 360501 14 1 1 3 6 1 2 1 5 16}		m		m		-		-		-		-		
19	icmpOutEchoReps	{1 2 124 360501 14 1 1 3 6 1 2 1 5 22}		m		m		-		-		-		-		
20	icmpOutEchos	{1 2 124 360501 14 1 1 3 6 1 2 1 5 21}		m		m		-		-		-		-		

21	icmpOutErrors	{1 2 124 360501 14 1 1 3 6 1 2 1 5 15}		m		m		-		-		-		-		
22	icmpOutMsgs	{1 2 124 360501 14 1 1 3 6 1 2 1 5 14}		m		m		-		-		-		-		
23	icmpOutParmProbs	{1 2 124 360501 14 1 1 3 6 1 2 1 5 18}		m		m		-		-		-		-		
24	icmpOutRedirects	{1 2 124 360501 14 1 1 3 6 1 2 1 5 20}		m		m		-		-		-		-		
25	icmpOutSrcQuenchs	{1 2 124 360501 14 1 1 3 6 1 2 1 5 19}		m		m		-		-		-		-		
26	icmpOutTimeExcds	{1 2 124 360501 14 1 1 3 6 1 2 1 5 17}		m		m		-		-		-		-		
27	icmpOutTimestampReps	{1 2 124 360501 14 1 1 3 6 1 2 1 5 24}		m		m		-		-		-		-		
28	icmpOutTimestamps	{1 2 124 360501 14 1 1 3 6 1 2 1 5 23}		m		m		-		-		-		-		
29	"Rec. X.721 | ISO/IEC 10165-2 : 1992": nameBinding	{2 9 3 2 7 63}	OBJECT IDENTIFIER	o		m		-		-		-		-		
30	"Rec. X.721 | ISO/IEC 10165-2 : 1992": objectClass	{2 9 3 2 7 65}	ObjectClass	-		m		-		-		-		-		
31	"Rec. X.721 | ISO/IEC 10165-2 : 1992": packages	{2 9 3 2 7 66}	SET OF OBJECT IDENTIFIER	o		c1		-		-		-		-		

Table A.5.4 icmp Attribute group support

There are no attribute groups specified for this managed object class.

Table A.5.5 icmp Action support

There are no actions specified for this managed object class.

Table A.5.6 icmp Notification support

There are no notifications specified for this managed object class.

Table A.5.7 icmp Parameter support

There are no parameters specified for this managed object class.

Table A.5.8 icmp Conditions

Condition number	Condition	Reference
c1	IF "any registered package, other than this package has been instantiated" THEN m ELSE -	A.5.2/3

Table A.5.9 icmp Name Binding support

Index	Name binding template label	Value of object identifier for name binding	Contraints and values	Status	Support	Additional information	Subindex	Operation	Constraints and values	Status	Support	Additional information
1	icmp-systemNB	{1 2 124 360501 14 4 1 3 6 1 2 1 5}	Superior class: "Rec. X.721 | ISO/IEC 10165-2 : 1992": Superior class: system AND SUBCLASSES	o			1.1	Create support		-		
							1.2	Create with reference object		-		
							1.3	Create with automatic instance naming		-		
							1.4	Delete support		-		
							1.5	Delete only if no contained objects		c:m		
							1.6	Delete contained objects		c:x		

A.6 IFENTRY [{IIMCRFC12131354}]

Table A.6.1 ifEntry 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	ifEntry	{1 2 124 360501 14 1 1 3 6 1 2 1 2 2 1}		

Table A.6.2 ifEntry PACKAGES

Index	Package template label	Value of object identifier for package	Constraints and values	Status	Support	Additional information
1	"Rec. X.721 | ISO/IEC 10165-2 : 1992": allomorphicPackage	{2 9 3 2 4 17}	"if an object supports allomorphism"	o		
2	ifEntryPkg		Mandatory	m		
3	"Rec. X.721 | ISO/IEC 10165-2 : 1992": packagesPackage	{2 9 3 2 4 16}	"any registered package, other than this package has been instantiated"	c1		
4	"Rec. X.721 | ISO/IEC 10165-2 : 1992": topPackage		Mandatory	m		

Table A.6.3 ifEntry Attribute support

				Set by create		Get		Replace		Add		Remove		Set to default		
Index	Attribute template label	Value of object identifier for attribute	Constraints and values	Status	Support	Status	Support	Status	Support	Status	Support	Status	Support	Status	Support	Additional information
1	"Rec. X.721 | ISO/IEC 10165-2 : 1992": allomorphs	{2 9 3 2 7 50}	SET OF ObjectClass	-		o		-		-		-		-		
2	ifAdminStatus	{1 2 124 360501 14 1 1 3 6 1 2 1 2 2 1 7}	INTEGER	m		m		m		-		-		-		
3	ifDescr	{1 2 124 360501 14 1 1 3 6 1 2 1 2 2 1 2}		m		m		-		-		-		-		
4	ifEntryId	{1 2 124 360501 14 15 1 3 6 1 2 1 2 2 1}	SEQUENCE	m		m		-		-		-		-		
5	ifInDiscards	{1 2 124 360501 14 1 1 3 6 1 2 1 2 2 1 13}		m		m		-		-		-		-		
6	ifInErrors	{1 2 124 360501 14 1 1 3 6 1 2 1 2 2 1 14}		m		m		-		-		-		-		
7	ifInNUcastPkts	{1 2 124 360501 14 1 1 3 6 1 2 1 2 2 1 12}		m		m		-		-		-		-		
8	ifInOctets	{1 2 124 360501 14 1 1 3 6 1 2 1 2 2 1 10}		m		m		-		-		-		-		
9	ifInUcastPkts	{1 2 124 360501 14 1 1 3 6 1 2 1 2 2 1 11}		m		m		-		-		-		-		
10	ifInUnknownProtos	{1 2 124 360501 14 1 1 3 6 1 2 1 2 2 1 15}		m		m		-		-		-		-		
11	ifIndex	{1 2 124 360501 14 1 1 3 6 1 2 1 2 2 1 1}	INTEGER	m		m		-		-		-		-		
12	ifLastChange	{1 2 124 360501 14 1 1 3 6 1 2 1 2 2 1 9}		m		m		-		-		-		-		
13	ifMtu	{1 2 124 360501 14 1 1 3 6 1 2 1 2 2 1 4}	INTEGER	m		m		-		-		-		-		
14	ifOperStatus	{1 2 124 360501 14 1 1 3 6 1 2 1 2 2 1 8}	INTEGER	m		m		-		-		-		-		
15	ifOutDiscards	{1 2 124 360501 14 1 1 3 6 1 2 1 2 2 1 19}		m		m		-		-		-		-		

16	ifOutErrors	{1 2 124 360501 14 1 1 3 6 1 2 1 2 2 1 20}		m		m		-		-		-		-		
17	ifOutNUcastPkts	{1 2 124 360501 14 1 1 3 6 1 2 1 2 2 1 18}		m		m		-		-		-		-		
18	ifOutOctets	{1 2 124 360501 14 1 1 3 6 1 2 1 2 2 1 16}		m		m		-		-		-		-		
19	ifOutQLen	{1 2 124 360501 14 1 1 3 6 1 2 1 2 2 1 21}		m		m		-		-		-		-		
20	ifOutUcastPkts	{1 2 124 360501 14 1 1 3 6 1 2 1 2 2 1 17}		m		m		-		-		-		-		
21	ifPhysAddress	{1 2 124 360501 14 1 1 3 6 1 2 1 2 2 1 6}		m		m		-		-		-		-		
22	ifSpecific	{1 2 124 360501 14 1 1 3 6 1 2 1 2 2 1 22}	OBJECT IDENTIFIER	m		m		-		-		-		-		
23	ifSpeed	{1 2 124 360501 14 1 1 3 6 1 2 1 2 2 1 5}		m		m		-		-		-		-		
24	ifType	{1 2 124 360501 14 1 1 3 6 1 2 1 2 2 1 3}	INTEGER	m		m		-		-		-		-		
25	"Rec. X.721 | ISO/IEC 10165-2 : 1992": nameBinding	{2 9 3 2 7 63}	OBJECT IDENTIFIER	o		m		-		-		-		-		
26	"Rec. X.721 | ISO/IEC 10165-2 : 1992": objectClass	{2 9 3 2 7 65}	ObjectClass	-		m		-		-		-		-		
27	"Rec. X.721 | ISO/IEC 10165-2 : 1992": packages	{2 9 3 2 7 66}	SET OF OBJECT IDENTIFIER	o		c1		-		-		-		-		

Table A.6.4 ifEntry Attribute group support

There are no attribute groups specified for this managed object class.

Table A.6.5 ifEntry Action support

There are no actions specified for this managed object class.

Table A.6.6 ifEntry Notification support

There are no notifications specified for this managed object class.

Table A.6.7 ifEntry Parameter support

There are no parameters specified for this managed object class.

Table A.6.8 ifEntry Conditions

Condition number	Condition	Reference
c1	IF "any registered package, other than this package has been instantiated" THEN m ELSE -	A.6.2/3

Table A.6.9 ifEntry Name Binding support

Index	Name binding template label	Value of object identifier for name binding	Contraints and values	Status	Support	Additional information	Subindex	Operation	Constraints and values	Status	Support	Additional information
1	ifEntry-interfacesNB	{1 2 124 360501 14 4 1 3 6 1 2 1 2 2 1}	Superior class: interfaces AND SUBCLASSES	o			1.1	Create support		-		
							1.2	Create with reference object		-		
							1.3	Create with automatic instance naming		-		
							1.4	Delete support		-		
							1.5	Delete only if no contained objects		c:m		
							1.6	Delete contained objects		c:x		

A.7 INTERFACES [{IIMCRFC12131354}]

Table A.7.1 interfaces 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	interfaces	{1 2 124 360501 14 1 1 3 6 1 2 1 2}		

Table A.7.2 interfaces PACKAGES

Index	Package template label	Value of object identifier for package	Constraints and values	Status	Support	Additional information
1	"Rec. X.721 | ISO/IEC 10165-2 : 1992": allomorphicPackage	{2 9 3 2 4 17}	"if an object supports allomorphism"	o		
2	interfacesPkg		Mandatory	m		
3	"Rec. X.721 | ISO/IEC 10165-2 : 1992": packagesPackage	{2 9 3 2 4 16}	"any registered package, other than this package has been instantiated"	c1		
4	"Rec. X.721 | ISO/IEC 10165-2 : 1992": topPackage		Mandatory	m		

Table A.7.3 interfaces Attribute support

				Set by create		Get		Replace		Add		Remove		Set to default		
Index	Attribute template label	Value of object identifier for attribute	Constraints and values	Status	Support	Status	Support	Status	Support	Status	Support	Status	Support	Status	Support	Additional information
1	"Rec. X.721 | ISO/IEC 10165-2 : 1992": allomorphs	{2 9 3 2 7 50}	SET OF ObjectClass	-		o		-		-		-		-		
2	ifNumber	{1 2 124 360501 14 1 1 3 6 1 2 1 2 1}	INTEGER	m		m		-		-		-		-		
3	interfacesId	{1 2 124 360501 14 15 1 3 6 1 2 1 2}	NULL	m		m		-		-		-		-		
4	"Rec. X.721 | ISO/IEC 10165-2 : 1992": nameBinding	{2 9 3 2 7 63}	OBJECT IDENTIFIER	o		m		-		-		-		-		
5	"Rec. X.721 | ISO/IEC 10165-2 : 1992": objectClass	{2 9 3 2 7 65}	ObjectClass	-		m		-		-		-		-		
6	"Rec. X.721 | ISO/IEC 10165-2 : 1992": packages	{2 9 3 2 7 66}	SET OF OBJECT IDENTIFIER	o		c1		-		-		-		-		

Table A.7.4 interfaces Attribute group support

There are no attribute groups specified for this managed object class.

Table A.7.5 interfaces Action support

There are no actions specified for this managed object class.

Table A.7.6 interfaces Notification support

There are no notifications specified for this managed object class.

Table A.7.7 interfaces Parameter support

There are no parameters specified for this managed object class.

Table A.7.8 interfaces Conditions

Condition number	Condition	Reference
c1	IF "any registered package, other than this package has been instantiated" THEN m ELSE -	A.7.2/3

Table A.7.9 interfaces Name Binding support

Index	Name binding template label	Value of object identifier for name binding	Contraints and values	Status	Support	Additional information	Subindex	Operation	Constraints and values	Status	Support	Additional information
1	interfaces-systemNB	{1 2 124 360501 14 4 1 3 6 1 2 1 2}	Superior class: "Rec. X.721 | ISO/IEC 10165-2 : 1992": Superior class: system AND SUBCLASSES	o			1.1	Create support		-		
							1.2	Create with reference object		-		
							1.3	Create with automatic instance naming		-		
							1.4	Delete support		-		
							1.5	Delete only if no contained objects		c:m		
							1.6	Delete contained objects		c:x		

A.8 INTERNETSYSTEM [{IIMCRFC12131354}]

Table A.8.1 internetSystem 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	internetSystem	{1 2 124 360501 14 1 1 3 6 1 2 1 1}		

Table A.8.2 internetSystem PACKAGES

Index	Package template label	Value of object identifier for package	Constraints and values	Status	Support	Additional information
1	"Rec. X.721 | ISO/IEC 10165-2 : 1992": allomorphicPackage	{2 9 3 2 4 17}	"if an object supports allomorphism"	o		
2	internetSystemPkg		Mandatory	m		
3	"Rec. X.721 | ISO/IEC 10165-2 : 1992": packagesPackage	{2 9 3 2 4 16}	"any registered package, other than this package has been instantiated"	c1		
4	"Rec. X.721 | ISO/IEC 10165-2 : 1992": topPackage		Mandatory	m		

Table A.8.3 internetSystem Attribute support

				Set by create		Get		Replace		Add		Remove		Set to default		
Index	Attribute template label	Value of object identifier for attribute	Constraints and values	Status	Support	Status	Support	Status	Support	Status	Support	Status	Support	Status	Support	Additional information
1	"Rec. X.721 | ISO/IEC 10165-2 : 1992": allomorphs	{2 9 3 2 7 50}	SET OF ObjectClass	-		o		-		-		-		-		
2	internetSystemId	{1 2 124 360501 14 15 1 3 6 1 2 1 1}	NULL	m		m		-		-		-		-		
3	"Rec. X.721 | ISO/IEC 10165-2 : 1992": nameBinding	{2 9 3 2 7 63}	OBJECT IDENTIFIER	o		m		-		-		-		-		
4	"Rec. X.721 | ISO/IEC 10165-2 : 1992": objectClass	{2 9 3 2 7 65}	ObjectClass	-		m		-		-		-		-		
5	"Rec. X.721 | ISO/IEC 10165-2 : 1992": packages	{2 9 3 2 7 66}	SET OF OBJECT IDENTIFIER	o		c1		-		-		-		-		
6	sysContact	{1 2 124 360501 14 1 1 3 6 1 2 1 1 4}		m		m		m		-		-		-		
7	sysDescr	{1 2 124 360501 14 1 1 3 6 1 2 1 1 1}		m		m		-		-		-		-		
8	sysLocation	{1 2 124 360501 14 1 1 3 6 1 2 1 1 6}		m		m		m		-		-		-		
9	sysName	{1 2 124 360501 14 1 1 3 6 1 2 1 1 5}		m		m		m		-		-		-		
10	sysObjectID	{1 2 124 360501 14 1 1 3 6 1 2 1 1 2}	OBJECT IDENTIFIER	m		m		-		-		-		-		
11	sysServices	{1 2 124 360501 14 1 1 3 6 1 2 1 1 7}	INTEGER	m		m		-		-		-		-		
12	sysUpTime	{1 2 124 360501 14 1 1 3 6 1 2 1 1 3}		m		m		-		-		-		-		

Table A.8.4 internetSystem Attribute group support

There are no attribute groups specified for this managed object class.

Table A.8.5 internetSystem Action support

There are no actions specified for this managed object class.

Table A.8.6 internetSystem Notification support

Index	Notification type template label	Value of object identifier for notification type	Constraints and values	Status	Support: Confirmed	Support: Non confirmed	Additional information	Subindex	Notification field name label	Value of object identifier of attribute type associated with field	Constraints and values	Status	Support	Additional information
1	{iimcIIMCIMIBTRANS}: internetAlarm	{1 2 124 360501 15 5 1}		m				1.1	InternetAlarmInfo		**REQUEST** SEQUENCE	m		
								1.1.1	probableCause	{2 9 3 2 7 18}	CHOICE	m		
								1.1.1.1	globalValue	-	OBJECT IDENTIFIER	o.1		
								1.1.1.2	localValue	-	INTEGER	o.1		
								1.1.2	attributeIdList	{2 9 3 2 7 8}	SET OF AttributeId	o		
								1.1.3	objectInstanceList	{1 2 124 360501 15 1 3}	SET OF ObjectInstance	o		
								1.1.4	unknownVarBindList	{1 2 124 360501 15 1 6}	CHOICE	o		
								1.1.4.1	v1	-	VarBindList	c:o.2		
								1.1.4.2	v2	-	VarBindList	c:o.2		
								1.1.5	internetTrapInfo	{1 2 124 360501 15 1 2}	SET OF SEQUENCE	o		
								1.1.5.1	objectInstance	-	ObjectInstance	c:o		
								1.1.5.2	Attribute	-	COMPONENTS OF	c::m		
								1.1.6	perceivedSeverity	{2 9 3 2 7 17}	ENUMERATED	o		
								1.1.7	notificationId	{2 9 3 2 7 16}	INTEGER	o		
								1.1.8	correlatedNot	-	SET OF SEQUENCE	o		
								1.1.8.1	correlatedNotifications	-	SET OF INTEGER	c:m		
								1.1.8.2	sourceObjectInst	-	ObjectInstance	c:o		
								1.1.9	transportDomain	{1 2 124 360501 15 1 5}	OBJECT IDENTIFIER	o		
								1.1.10	transportAddress	{1 2 124 360501 15 1 4}	OCTET STRING	o		
								1.1.11	accessControlInfo	{1 2 124 360501 15 1 1}	CHOICE	o		
								1.1.11.1	communityString	-	OCTET STRING	c:o.3		
								1.1.11.2	partyInfo	-	SEQUENCE	c:o.3		
								1.1.11.2.1	srcParty	-	OBJECT IDENTIFIER	c:m		
								1.1.11.2.2	dstparty	-	OBJECT IDENTIFIER	c:m		
								1.1.11.2.3	context	-	OBJECT IDENTIFIER	c:m		
								1.1.12	additionalInformation	{2 9 3 2 7 6}	SET OF SEQUENCE	o		
								1.1.12.1	identifier	-	OBJECT IDENTIFIER	c:m		
								1.1.12.2	significance	-	BOOLEAN	c:m		
								1.1.12.3	information	-	ANY DEFINED BY identifier	c:m		

Table A.8.7 internetSystem Parameter support

There are no parameters specified for this managed object class.

Table A.8.8 internetSystem Conditions

Condition number	Condition	Reference
c1	IF "any registered package, other than this package has been instantiated" THEN m ELSE -	A.8.2/3

Table A.8.9 internetSystem Name Binding support

Index	Name binding template label	Value of object identifier for name binding	Contraints and values	Status	Support	Additional information	Subindex	Operation	Constraints and values	Status	Support	Additional information
1	internetSystem-systemNB	{1 2 124 360501 14 4 1 3 6 1 2 1 1}	Superior class: "Rec. X.721 | ISO/IEC 10165-2 : 1992": Superior class: system AND SUBCLASSES	o			1.1	Create support		-		
							1.2	Create with reference object		-		
							1.3	Create with automatic instance naming		-		
							1.4	Delete support		-		
							1.5	Delete only if no contained objects		c:m		
							1.6	Delete contained objects		c:x		

A.9 IP [{IIMCRFC12131354}]

Table A.9.1 ip 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	ip	{1 2 124 360501 14 1 1 3 6 1 2 1 4}		

Table A.9.2 ip PACKAGES

Index	Package template label	Value of object identifier for package	Constraints and values	Status	Support	Additional information
1	"Rec. X.721 | ISO/IEC 10165-2 : 1992": allomorphicPackage	{2 9 3 2 4 17}	"if an object supports allomorphism"	o		
2	ipPkg		Mandatory	m		
3	"Rec. X.721 | ISO/IEC 10165-2 : 1992": packagesPackage	{2 9 3 2 4 16}	"any registered package, other than this package has been instantiated"	c1		
4	"Rec. X.721 | ISO/IEC 10165-2 : 1992": topPackage		Mandatory	m		

Table A.9.3 ip Attribute support

				Set by create		Get		Replace		Add		Remove		Set to default		
Index	Attribute template label	Value of object identifier for attribute	Constraints and values	Status	Support	Status	Support	Status	Support	Status	Support	Status	Support	Status	Support	Additional information
1	"Rec. X.721 | ISO/IEC 10165-2 : 1992": allomorphs	{2 9 3 2 7 50}	SET OF ObjectClass	-		o		-		-		-		-		
2	ipDefaultTTL	{1 2 124 360501 14 1 1 3 6 1 2 1 4 2}	INTEGER	m		m		m		-		-		-		
3	ipForwDatagrams	{1 2 124 360501 14 1 1 3 6 1 2 1 4 6}		m		m		-		-		-		-		
4	ipForwardNumber	{1 2 124 360501 14 1 1 3 6 1 2 1 4 24 1}		m		m		-		-		-		-		
5	ipForwarding	{1 2 124 360501 14 1 1 3 6 1 2 1 4 1}	INTEGER	m		m		m		-		-		-		
6	ipFragCreates	{1 2 124 360501 14 1 1 3 6 1 2 1 4 19}		m		m		-		-		-		-		
7	ipFragFails	{1 2 124 360501 14 1 1 3 6 1 2 1 4 18}		m		m		-		-		-		-		
8	ipFragOKs	{1 2 124 360501 14 1 1 3 6 1 2 1 4 17}		m		m		-		-		-		-		
9	ipId	{1 2 124 360501 14 15 1 3 6 1 2 1 4}	NULL	m		m		-		-		-		-		
10	ipInAddrErrors	{1 2 124 360501 14 1 1 3 6 1 2 1 4 5}		m		m		-		-		-		-		
11	ipInDelivers	{1 2 124 360501 14 1 1 3 6 1 2 1 4 9}		m		m		-		-		-		-		
12	ipInDiscards	{1 2 124 360501 14 1 1 3 6 1 2 1 4 8}		m		m		-		-		-		-		
13	ipInHdrErrors	{1 2 124 360501 14 1 1 3 6 1 2 1 4 4}		m		m		-		-		-		-		
14	ipInReceives	{1 2 124 360501 14 1 1 3 6 1 2 1 4 3}		m		m		-		-		-		-		
15	ipInUnknownProtos	{1 2 124 360501 14 1 1 3 6 1 2 1 4 7}		m		m		-		-		-		-		
16	ipOutDiscards	{1 2 124 360501 14 1 1 3 6 1 2 1 4 11}		m		m		-		-		-		-		
17	ipOutNoRoutes	{1 2 124 360501 14 1 1 3 6 1 2 1 4 12}		m		m		-		-		-		-		
18	ipOutRequests	{1 2 124 360501 14 1 1 3 6 1 2 1 4 10}		m		m		-		-		-		-		
19	ipReasmFails	{1 2 124 360501 14 1 1 3 6 1 2 1 4 16}		m		m		-		-		-		-		
20	ipReasmOKs	{1 2 124 360501 14 1 1 3 6 1 2 1 4 15}		m		m		-		-		-		-		

21	ipReasmReqds	{1 2 124 360501 14 1 1 3 6 1 2 1 4 14}		m		m		-		-		-		-		
22	ipReasmTimeout	{1 2 124 360501 14 1 1 3 6 1 2 1 4 13}	INTEGER	m		m		-		-		-		-		
23	ipRoutingDiscards	{1 2 124 360501 14 1 1 3 6 1 2 1 4 23}		m		m		-		-		-		-		
24	"Rec. X.721 | ISO/IEC 10165-2 : 1992": nameBinding	{2 9 3 2 7 63}	OBJECT IDENTIFIER	o		m		-		-		-		-		
25	"Rec. X.721 | ISO/IEC 10165-2 : 1992": objectClass	{2 9 3 2 7 65}	ObjectClass	-		m		-		-		-		-		
26	"Rec. X.721 | ISO/IEC 10165-2 : 1992": packages	{2 9 3 2 7 66}	SET OF OBJECT IDENTIFIER	o		c1		-		-		-		-		

Table A.9.4 ip Attribute group support

There are no attribute groups specified for this managed object class.

Table A.9.5 ip Action support

There are no actions specified for this managed object class.

Table A.9.6 ip Notification support

There are no notifications specified for this managed object class.

Table A.9.7 ip Parameter support

There are no parameters specified for this managed object class.

Table A.9.8 ip Conditions

Condition number	Condition	Reference
c1	IF "any registered package, other than this package has been instantiated" THEN m ELSE -	A.9.2/3

Table A.9.9 ip Name Binding support

Index	Name binding template label	Value of object identifier for name binding	Contraints and values	Status	Support	Additional information	Subindex	Operation	Constraints and values	Status	Support	Additional information
1	ip-systemNB	{1 2 124 360501 14 4 1 3 6 1 2 1 4}	Superior class: "Rec. X.721 | ISO/IEC 10165-2 : 1992": Superior class: system AND SUBCLASSES	o			1.1	Create support		-		
							1.2	Create with reference object		-		
							1.3	Create with automatic instance naming		-		
							1.4	Delete support		-		
							1.5	Delete only if no contained objects		c:m		
							1.6	Delete contained objects		c:x		

A.10 IPADDRENTRY [{IIMCRFC12131354}]

Table A.10.1 ipAddrEntry 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 t which conformance is claimed? (Y/N)
1	ipAddrEntry	{1 2 124 360501 14 1 1 3 6 1 2 1 4 20 1}		

Table A.10.2 ipAddrEntry PACKAGES

Index	Package template label	Value of object identifier for package	Constraints and values	Status	Support	Additional information
1	"Rec. X.721 | ISO/IEC 10165-2 : 1992": allomorphicPackage	{2 9 3 2 4 17}	"if an object supports allomorphism"	o		
2	ipAddrEntryPkg		Mandatory	m		
3	"Rec. X.721 | ISO/IEC 10165-2 : 1992": packagesPackage	{2 9 3 2 4 16}	"any registered package, other than this package has been instantiated"	c1		
4	"Rec. X.721 | ISO/IEC 10165-2 : 1992": topPackage		Mandatory	m		

Table A.10.3 ipAddrEntry Attribute support

				Set by create		Get		Replace		Add		Remove		Set to default		
Index	Attribute template label	Value of object identifier for attribute	Constraints and values	Status	Support	Status	Support	Status	Support	Status	Support	Status	Support	Status	Support	Additional information
1	"Rec. X.721 | ISO/IEC 10165-2 : 1992": allomorphs	{2 9 3 2 7 50}	SET OF ObjectClass	-		o		-		-		-		-		
2	ipAdEntAddr	{1 2 124 360501 14 1 1 3 6 1 2 1 4 20 1 1}		m		m		-		-		-		-		
3	ipAdEntBcastAddr	{1 2 124 360501 14 1 1 3 6 1 2 1 4 20 1 4}	INTEGER	m		m		-		-		-		-		
4	ipAdEntIfIndex	{1 2 124 360501 14 1 1 3 6 1 2 1 4 20 1 2}	INTEGER	m		m		-		-		-		-		
5	ipAdEntNetMask	{1 2 124 360501 14 1 1 3 6 1 2 1 4 20 1 3}		m		m		-		-		-		-		
6	ipAdEntReasmMaxSize	{1 2 124 360501 14 1 1 3 6 1 2 1 4 20 1 5}	INTEGER	m		m		-		-		-		-		
7	ipAddrEntryId	{1 2 124 360501 14 15 1 3 6 1 2 1 4 20 1}	SEQUENCE	m		m		-		-		-		-		
8	"Rec. X.721 | ISO/IEC 10165-2 : 1992": nameBinding	{2 9 3 2 7 63}	OBJECT IDENTIFIER	o		m		-		-		-		-		
9	"Rec. X.721 | ISO/IEC 10165-2 : 1992": objectClass	{2 9 3 2 7 65}	ObjectClass	-		m		-		-		-		-		
10	"Rec. X.721 | ISO/IEC 10165-2 : 1992": packages	{2 9 3 2 7 66}	SET OF OBJECT IDENTIFIER	o		c1		-		-		-		-		

Table A.10.4 ipAddrEntry Attribute group support

There are no attribute groups specified for this managed object class.

Table A.10.5 ipAddrEntry Action support

There are no actions specified for this managed object class.

Table A.10.6 ipAddrEntry Notification support

There are no notifications specified for this managed object class.

Table A.10.7 ipAddrEntry Parameter support

There are no parameters specified for this managed object class.

Table A.10.8 ipAddrEntry Conditions

Condition number	Condition	Reference
c1	IF "any registered package, other than this package has been instantiated" THEN m ELSE -	A.10.2/3

Table A.10.9 ipAddrEntry Name Binding support

Index	Name binding template label	Value of object identifier for name binding	Contraints and values	Status	Support	Additional information	Subindex	Operation	Constraints and values	Status	Support	Additional information
1	ipAddrEntry-ipNB	{1 2 124 360501 14 4 1 3 6 1 2 1 4 20 1}	Superior class: ip AND SUBCLASSES	o			1.1	Create support		-		
							1.2	Create with reference object		-		
							1.3	Create with automatic instance naming		-		
							1.4	Delete support		-		
							1.5	Delete only if no contained objects		c:m		
							1.6	Delete contained objects		c:x		

A.11 IPFORWARDENTRY [{IIMCRFC12131354}]

Table A.11.1 ipForwardEntry 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	ipForwardEntry	{1 2 124 360501 14 1 1 3 6 1 2 1 4 24 2}		

Table A.11.2 ipForwardEntry PACKAGES

Index	Package template label	Value of object identifier for package	Constraints and values	Status	Support	Additional information
1	"Rec. X.721 | ISO/IEC 10165-2 : 1992": allomorphicPackage	{2 9 3 2 4 17}	"if an object supports allomorphism"	o		
2	ipForwardEntryPkg		Mandatory	m		
3	"Rec. X.721 | ISO/IEC 10165-2 : 1992": packagesPackage	{2 9 3 2 4 16}	"any registered package, other than this package has been instantiated"	c1		
4	"Rec. X.721 | ISO/IEC 10165-2 : 1992": topPackage		Mandatory	m		

Table A.11.3 ipForwardEntry Attribute support

				Set by create		Get		Replace		Add		Remove		Set to default		
Index	Attribute template label	Value of object identifier for attribute	Constraints and values	Status	Support	Status	Support	Status	Support	Status	Support	Status	Support	Status	Support	Additional information
1	"Rec. X.721 | ISO/IEC 10165-2 : 1992": allomorphs	{2 9 3 2 7 50}	SET OF ObjectClass	-		o		-		-		-		-		
2	ipForwardAge	{1 2 124 360501 14 1 1 3 6 1 2 1 4 24 2 1 8}	INTEGER	m		m		-		-		-		-		
3	ipForwardDest	{1 2 124 360501 14 1 1 3 6 1 2 1 4 24 2 1 1}		m		m		-		-		-		-		
4	ipForwardEntryId	{1 2 124 360501 14 15 1 3 6 1 2 1 4 24 2 1}	SEQUENCE	m		m		-		-		-		-		
5	ipForwardIfIndex	{1 2 124 360501 14 1 1 3 6 1 2 1 4 24 2 1 5}	INTEGER	m		m		m		-		-		-		
6	ipForwardInfo	{1 2 124 360501 14 1 1 3 6 1 2 1 4 24 2 1 9}	OBJECT IDENTIFIER	m		m		m		-		-		-		
7	ipForwardMask	{1 2 124 360501 14 1 1 3 6 1 2 1 4 24 2 1 2}		m		m		m		-		-		-		
8	ipForwardMetric1	{1 2 124 360501 14 1 1 3 6 1 2 1 4 24 2 1 11}	INTEGER	m		m		m		-		-		-		
9	ipForwardMetric2	{1 2 124 360501 14 1 1 3 6 1 2 1 4 24 2 1 12}	INTEGER	m		m		m		-		-		-		
10	ipForwardMetric3	{1 2 124 360501 14 1 1 3 6 1 2 1 4 24 2 1 13}	INTEGER	m		m		m		-		-		-		
11	ipForwardMetric4	{1 2 124 360501 14 1 1 3 6 1 2 1 4 24 2 1 14}	INTEGER	m		m		m		-		-		-		
12	ipForwardMetric5	{1 2 124 360501 14 1 1 3 6 1 2 1 4 24 2 1 15}	INTEGER	m		m		m		-		-		-		
13	ipForwardNextHop	{1 2 124 360501 14 1 1 3 6 1 2 1 4 24 2 1 4}		m		m		-		-		-		-		
14	ipForwardNextHopAS	{1 2 124 360501 14 1 1 3 6 1 2 1 4 24 2 1 10}	INTEGER	m		m		m		-		-		-		
15	ipForwardPolicy	{1 2 124 360501 14 1 1 3 6 1 2 1 4 24 2 1 3}	INTEGER	m		m		-		-		-		-		

16	ipForwardProto	{1 2 124 360501 14 1 1 3 6 1 2 1 4 24 2 1 7}	INTEGER	m		m		-		-		-		-		
17	ipForwardType	{1 2 124 360501 14 1 1 3 6 1 2 1 4 24 2 1 6}	INTEGER	m		m		m		-		-		-		
18	"Rec. X.721 | ISO/IEC 10165-2 : 1992": nameBinding	{2 9 3 2 7 63}	OBJECT IDENTIFIER	o		m		-		-		-		-		
19	"Rec. X.721 | ISO/IEC 10165-2 : 1992": objectClass	{2 9 3 2 7 65}	ObjectClass	-		m		-		-		-		-		
20	"Rec. X.721 | ISO/IEC 10165-2 : 1992": packages	{2 9 3 2 7 66}	SET OF OBJECT IDENTIFIER	o		c1		-		-		-		-		

Table A.11.4 ipForwardEntry Attribute group support

There are no attribute groups specified for this managed object class.

Table A.11.5 ipForwardEntry Action support

There are no actions specified for this managed object class.

Table A.11.6 ipForwardEntry Notification support

There are no notifications specified for this managed object class.

Table A.11.7 ipForwardEntry Parameter support

There are no parameters specified for this managed object class.

Table A.11.8 ipForwardEntry Conditions

Condition number	Condition	Reference
c1	IF "any registered package, other than this package has been instantiated" THEN m ELSE -	A.11.2/3

Table A.11.9 ipForwardEntry Name Binding support

Index	Name binding template label	Value of object identifier for name binding	Contraints and values	Status	Support	Additional information	Subindex	Operation	Constraints and values	Status	Support	Additional information
1	ipForwardEntry-ipNB	{1 2 124 360501 14 4 1 3 6 1 2 1 4 24 2 1}	Superior class: ip AND SUBCLASSES	o			1.1	Create support		c:m		
							1.2	Create with reference object		c:m		
							1.3	Create with automatic instance naming		c:m		
							1.4	Delete support		c:m		
							1.5	Delete only if no contained objects		c:x		
							1.6	Delete contained objects		c:m		

A.12 IPNETTOMEDIAENTRY [{IIMCRFC12131354}]

Table A.12.1 ipNetToMediaEntry 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	ipNetToMediaEntry	{1 2 124 360501 14 1 1 3 6 1 2 1 4 22 1}		

Table A.12.2 ipNetToMediaEntry PACKAGES

Index	Package template label	Value of object identifier for package	Constraints and values	Status	Support	Additional information
1	"Rec. X.721 | ISO/IEC 10165-2 : 1992": allomorphicPackage	{2 9 3 2 4 17}	"if an object supports allomorphism"	o		
2	ipNetToMediaEntryPkg		Mandatory	m		
3	"Rec. X.721 | ISO/IEC 10165-2 : 1992": packagesPackage	{2 9 3 2 4 16}	"any registered package, other than this package has been instantiated"	c1		
4	"Rec. X.721 | ISO/IEC 10165-2 : 1992": topPackage		Mandatory	m		

Table A.12.3 ipNetToMediaEntry Attribute support

				Set by create		Get		Replace		Add		Remove		Set to default		
Index	Attribute template label	Value of object identifier for attribute	Constraints and values	Status	Support	Status	Support	Status	Support	Status	Support	Status	Support	Status	Support	Additional information
1	"Rec. X.721 | ISO/IEC 10165-2 : 1992": allomorphs	{2 9 3 2 7 50}	SET OF ObjectClass	-		o		-		-		-		-		
2	ipNetToMediaEntryId	{1 2 124 360501 14 15 1 3 6 1 2 1 4 22 1}	SEQUENCE	m		m		-		-		-		-		
3	ipNetToMediaIfIndex	{1 2 124 360501 14 1 1 3 6 1 2 1 4 22 1 1}	INTEGER	m		m		-		-		-		-		
4	ipNetToMediaNetAddress	{1 2 124 360501 14 1 1 3 6 1 2 1 4 22 1 3}		m		m		-		-		-		-		
5	ipNetToMediaPhysAddress	{1 2 124 360501 14 1 1 3 6 1 2 1 4 22 1 2}		m		m		m		-		-		-		
6	ipNetToMediaType	{1 2 124 360501 14 1 1 3 6 1 2 1 4 22 1 4}	INTEGER	m		m		m		-		-		-		
7	"Rec. X.721 | ISO/IEC 10165-2 : 1992": nameBinding	{2 9 3 2 7 63}	OBJECT IDENTIFIER	o		m		-		-		-		-		
8	"Rec. X.721 | ISO/IEC 10165-2 : 1992": objectClass	{2 9 3 2 7 65}	ObjectClass	-		m		-		-		-		-		
9	"Rec. X.721 | ISO/IEC 10165-2 : 1992": packages	{2 9 3 2 7 66}	SET OF OBJECT IDENTIFIER	o		c1		-		-		-		-		

Table A.12.4 ipNetToMediaEntry Attribute group support

There are no attribute groups specified for this managed object class.

Table A.12.5 ipNetToMediaEntry Action support

There are no actions specified for this managed object class.

Table A.12.6 ipNetToMediaEntry Notification support

There are no notifications specified for this managed object class.

Table A.12.7 ipNetToMediaEntry Parameter support

There are no parameters specified for this managed object class.

Table A.12.8 ipNetToMediaEntry Conditions

Condition number	Condition	Reference
c1	IF "any registered package, other than this package has been instantiated" THEN m ELSE -	A.12.2/3

Table A.12.9 ipNetToMediaEntry Name Binding support

Index	Name binding template label	Value of object identifier for name binding	Contraints and values	Status	Support	Additional information	Subindex	Operation	Constraints and values	Status	Support	Additional information
1	ipNetToMediaEntry-ipNB	{1 2 124 360501 14 4 1 3 6 1 2 1 4 22 1}	Superior class: ip AND SUBCLASSES	o			1.1	Create support		c:m		
							1.2	Create with reference object		c:m		
							1.3	Create with automatic instance naming		c:m		
							1.4	Delete support		c:m		
							1.5	Delete only if no contained objects		c:x		
							1.6	Delete contained objects		c:m		

A.13 IPROUTEENTRY [{IIMCRFC12131354}]

Table A.13.1 ipRouteEntry 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	ipRouteEntry	{1 2 124 360501 14 1 1 3 6 1 2 1 4 21 1}		

Table A.13.2 ipRouteEntry PACKAGES

Index	Package template label	Value of object identifier for package	Constraints and values	Status	Support	Additional information
1	"Rec. X.721 | ISO/IEC 10165-2 : 1992": allomorphicPackage	{2 9 3 2 4 17}	"if an object supports allomorphism"	o		
2	ipRouteEntryPkg		Mandatory	m		
3	"Rec. X.721 | ISO/IEC 10165-2 : 1992": packagesPackage	{2 9 3 2 4 16}	"any registered package, other than this package has been instantiated"	c1		
4	"Rec. X.721 | ISO/IEC 10165-2 : 1992": topPackage		Mandatory	m		

Table A.13.3 ipRouteEntry Attribute support

				Set by create		Get		Replace		Add		Remove		Set to default		
Index	Attribute template label	Value of object identifier for attribute	Constraints and values	Status	Support	Status	Support	Status	Support	Status	Support	Status	Support	Status	Support	Additional information
1	"Rec. X.721 | ISO/IEC 10165-2 : 1992": allomorphs	{2 9 3 2 7 50}	SET OF ObjectClass	-		o		-		-		-		-		
2	ipRouteAge	{1 2 124 360501 14 1 1 3 6 1 2 1 4 21 1 10}	INTEGER	m		m		m		-		-		-		
3	ipRouteDest	{1 2 124 360501 14 1 1 3 6 1 2 1 4 21 1 1}		m		m		-		-		-		-		
4	ipRouteEntryId	{1 2 124 360501 14 15 1 3 6 1 2 1 4 21 1}	SEQUENCE	m		m		-		-		-		-		
5	ipRouteIfIndex	{1 2 124 360501 14 1 1 3 6 1 2 1 4 21 1 2}	INTEGER	m		m		m		-		-		-		
6	ipRouteInfo	{1 2 124 360501 14 1 1 3 6 1 2 1 4 21 1 13}	OBJECT IDENTIFIER	m		m		-		-		-		-		
7	ipRouteMask	{1 2 124 360501 14 1 1 3 6 1 2 1 4 21 1 11}		m		m		m		-		-		-		
8	ipRouteMetric1	{1 2 124 360501 14 1 1 3 6 1 2 1 4 21 1 3}	INTEGER	m		m		m		-		-		-		
9	ipRouteMetric2	{1 2 124 360501 14 1 1 3 6 1 2 1 4 21 1 4}	INTEGER	m		m		m		-		-		-		
10	ipRouteMetric3	{1 2 124 360501 14 1 1 3 6 1 2 1 4 21 1 5}	INTEGER	m		m		m		-		-		-		
11	ipRouteMetric4	{1 2 124 360501 14 1 1 3 6 1 2 1 4 21 1 6}	INTEGER	m		m		m		-		-		-		
12	ipRouteMetric5	{1 2 124 360501 14 1 1 3 6 1 2 1 4 21 1 12}	INTEGER	m		m		m		-		-		-		
13	ipRouteNextHop	{1 2 124 360501 14 1 1 3 6 1 2 1 4 21 1 7}		m		m		m		-		-		-		
14	ipRouteProto	{1 2 124 360501 14 1 1 3 6 1 2 1 4 21 1 9}	INTEGER	m		m		-		-		-		-		
15	ipRouteType	{1 2 124 360501 14 1 1 3 6 1 2 1 4 21 1 8}	INTEGER	m		m		m		-		-		-		
16	"Rec. X.721 | ISO/IEC 10165-2 : 1992": nameBinding	{2 9 3 2 7 63}	OBJECT IDENTIFIER	o		m		-		-		-		-		

17	"Rec. X.721 | ISO/IEC 10165-2 : 1992": objectClass	{2 9 3 2 7 65}	ObjectClass	-		m		-		-		-		-		
18	"Rec. X.721 | ISO/IEC 10165-2 : 1992": packages	{2 9 3 2 7 66}	SET OF OBJECT IDENTIFIER	o		c1		-		-		-		-		

Table A.13.4 ipRouteEntry Attribute group support

There are no attribute groups specified for this managed object class.

Table A.13.5 ipRouteEntry Action support

There are no actions specified for this managed object class.

Table A.13.6 ipRouteEntry Notification support

There are no notifications specified for this managed object class.

Table A.13.7 ipRouteEntry Parameter support

There are no parameters specified for this managed object class.

Table A.13.8 ipRouteEntry Conditions

Condition number	Condition	Reference
c1	IF "any registered package, other than this package has been instantiated" THEN m ELSE -	A.13.2/3

Table A.13.9 ipRouteEntry Name Binding support

Index	Name binding template label	Value of object identifier for name binding	Contraints and values	Status	Support	Additional information	Subindex	Operation	Constraints and values	Status	Support	Additional information
1	ipRouteEntry-ipNB	{1 2 124 360501 14 4 1 3 6 1 2 1 4 21 1}	Superior class: ip AND SUBCLASSES	o			1.1	Create support		c:m		
							1.2	Create with reference object		c:m		
							1.3	Create with automatic instance naming		c:m		
							1.4	Delete support		c:m		
							1.5	Delete only if no contained objects		c:x		
							1.6	Delete contained objects		c:m		

A.14 SNMP [{IIMCRFC12131354}]

Table A.14.1 snmp 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 t which conformance is claimed? (Y/N)
1	snmp	{1 2 124 360501 14 1 1 3 6 1 2 1 11}		

Table A.14.2 snmp PACKAGES

Index	Package template label	Value of object identifier for package	Constraints and values	Status	Support	Additional information
1	"Rec. X.721 | ISO/IEC 10165-2 : 1992": allomorphicPackage	{2 9 3 2 4 17}	"if an object supports allomorphism"	o		
2	"Rec. X.721 | ISO/IEC 10165-2 : 1992": packagesPackage	{2 9 3 2 4 16}	"any registered package, other than this package has been instantiated"	c1		
3	snmpPkg		Mandatory	m		
4	"Rec. X.721 | ISO/IEC 10165-2 : 1992": topPackage		Mandatory	m		

Table A.14.3 snmp Attribute support

				Set by create		Get		Replace		Add		Remove		Set to default		
Index	Attribute template label	Value of object identifier for attribute	Constraints and values	Status	Support	Status	Support	Status	Support	Status	Support	Status	Support	Status	Support	Additional information
1	"Rec. X.721 | ISO/IEC 10165-2 : 1992": allomorphs	{2 9 3 2 7 50}	SET OF ObjectClass	-		o		-		-		-		-		
2	"Rec. X.721 | ISO/IEC 10165-2 : 1992": nameBinding	{2 9 3 2 7 63}	OBJECT IDENTIFIER	o		m		-		-		-		-		
3	"Rec. X.721 | ISO/IEC 10165-2 : 1992": objectClass	{2 9 3 2 7 65}	ObjectClass	-		m		-		-		-		-		
4	"Rec. X.721 | ISO/IEC 10165-2 : 1992": packages	{2 9 3 2 7 66}	SET OF OBJECT IDENTIFIER	o		c1		-		-		-		-		
5	snmpEnableAuthenTraps	{1 2 124 360501 14 1 1 3 6 1 2 1 11 30}	INTEGER	m		m		m		-		-		-		
6	snmpId	{1 2 124 360501 14 15 1 3 6 1 2 1 11}	NULL	m		m		-		-		-		-		
7	snmpInASNParseErrs	{1 2 124 360501 14 1 1 3 6 1 2 1 11 6}		m		m		-		-		-		-		
8	snmpInBadCommunityNames	{1 2 124 360501 14 1 1 3 6 1 2 1 11 4}		m		m		-		-		-		-		
9	snmpInBadCommunityUses	{1 2 124 360501 14 1 1 3 6 1 2 1 11 5}		m		m		-		-		-		-		
10	snmpInBadValues	{1 2 124 360501 14 1 1 3 6 1 2 1 11 10}		m		m		-		-		-		-		
11	snmpInBadVersions	{1 2 124 360501 14 1 1 3 6 1 2 1 11 3}		m		m		-		-		-		-		
12	snmpInGenErrs	{1 2 124 360501 14 1 1 3 6 1 2 1 11 12}		m		m		-		-		-		-		
13	snmpInGetNexts	{1 2 124 360501 14 1 1 3 6 1 2 1 11 16}		m		m		-		-		-		-		
14	snmpInGetRequests	{1 2 124 360501 14 1 1 3 6 1 2 1 11 15}		m		m		-		-		-		-		
15	snmpInGetResponses	{1 2 124 360501 14 1 1 3 6 1 2 1 11 18}		m		m		-		-		-		-		
16	snmpInNoSuchNames	{1 2 124 360501 14 1 1 3 6 1 2 1 11 9}		m		m		-		-		-		-		
17	snmpInPkts	{1 2 124 360501 14 1 1 3 6 1 2 1 11 1}		m		m		-		-		-		-		
18	snmpInReadOnlys	{1 2 124 360501 14 1 1 3 6 1 2 1 11 11}		m		m		-		-		-		-		

19	snmpInSetRequests	{1 2 124 360501 14 1 1 3 6 1 2 1 11 17}		m		m		-		-		-		-		
20	snmpInTooBigs	{1 2 124 360501 14 1 1 3 6 1 2 1 11 8}		m		m		-		-		-		-		
21	snmpInTotalReqVars	{1 2 124 360501 14 1 1 3 6 1 2 1 11 13}		m		m		-		-		-		-		
22	snmpInTotalSetVars	{1 2 124 360501 14 1 1 3 6 1 2 1 11 14}		m		m		-		-		-		-		
23	snmpInTraps	{1 2 124 360501 14 1 1 3 6 1 2 1 11 19}		m		m		-		-		-		-		
24	snmpOutBadValues	{1 2 124 360501 14 1 1 3 6 1 2 1 11 22}		m		m		-		-		-		-		
25	snmpOutGenErrs	{1 2 124 360501 14 1 1 3 6 1 2 1 11 24}		m		m		-		-		-		-		
26	snmpOutGetNexts	{1 2 124 360501 14 1 1 3 6 1 2 1 11 26}		m		m		-		-		-		-		
27	snmpOutGetRequests	{1 2 124 360501 14 1 1 3 6 1 2 1 11 25}		m		m		-		-		-		-		
28	snmpOutGetResponses	{1 2 124 360501 14 1 1 3 6 1 2 1 11 28}		m		m		-		-		-		-		
29	snmpOutNoSuchNames	{1 2 124 360501 14 1 1 3 6 1 2 1 11 21}		m		m		-		-		-		-		
30	snmpOutPkts	{1 2 124 360501 14 1 1 3 6 1 2 1 11 2}		m		m		-		-		-		-		
31	snmpOutSetRequests	{1 2 124 360501 14 1 1 3 6 1 2 1 11 27}		m		m		-		-		-		-		
32	snmpOutTooBigs	{1 2 124 360501 14 1 1 3 6 1 2 1 11 20}		m		m		-		-		-		-		
33	snmpOutTraps	{1 2 124 360501 14 1 1 3 6 1 2 1 11 29}		m		m		-		-		-		-		

Table A.14.4 snmp Attribute group support

There are no attribute groups specified for this managed object class.

Table A.14.5 snmp Action support

There are no actions specified for this managed object class.

Table A.14.6 snmp Notification support

There are no notifications specified for this managed object class.

Table A.14.7 snmp Parameter support

There are no parameters specified for this managed object class.

Table A.14.8 snmp Conditions

Condition number	Condition	Reference
c1	IF "any registered package, other than this package has been instantiated" THEN m ELSE -	A.14.2/2

Table A.14.9 snmp Name Binding support

Index	Name binding template label	Value of object identifier for name binding	Contraints and values	Status	Support	Additional information	Subindex	Operation	Constraints and values	Status	Support	Additional information
1	snmp-systemNB	{1 2 124 360501 14 4 1 3 6 1 2 1 11}	Superior class: "Rec. X.721 | ISO/IEC 10165-2 : 1992": Superior class: system AND SUBCLASSES	o			1.1	Create support		-		
							1.2	Create with reference object		-		
							1.3	Create with automatic instance naming		-		
							1.4	Delete support		-		
							1.5	Delete only if no contained objects		c:m		
							1.6	Delete contained objects		c:x		

A.15 TCP [{IIMCRFC12131354}]

Table A.15.1 tcp 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	tcp	{1 2 124 360501 14 1 1 3 6 1 2 1 6}		

Table A.15.2 tcp PACKAGES

Index	Package template label	Value of object identifier for package	Constraints and values	Status	Support	Additional information
1	"Rec. X.721 | ISO/IEC 10165-2 : 1992": allomorphicPackage	{2 9 3 2 4 17}	"if an object supports allomorphism"	o		
2	"Rec. X.721 | ISO/IEC 10165-2 : 1992": packagesPackage	{2 9 3 2 4 16}	"any registered package, other than this package has been instantiated"	c1		
3	tcpPkg		Mandatory	m		
4	"Rec. X.721 | ISO/IEC 10165-2 : 1992": topPackage		Mandatory	m		

Table A.15.3 tcp Attribute support

				Set by create		Get		Replace		Add		Remove		Set to default		
Index	Attribute template label	Value of object identifier for attribute	Constraints and values	Status	Support	Status	Support	Status	Support	Status	Support	Status	Support	Status	Support	Additional information
1	"Rec. X.721 | ISO/IEC 10165-2 : 1992": allomorphs	{2 9 3 2 7 50}	SET OF ObjectClass	-		o		-		-		-		-		
2	"Rec. X.721 | ISO/IEC 10165-2 : 1992": nameBinding	{2 9 3 2 7 63}	OBJECT IDENTIFIER	o		m		-		-		-		-		
3	"Rec. X.721 | ISO/IEC 10165-2 : 1992": objectClass	{2 9 3 2 7 65}	ObjectClass	-		m		-		-		-		-		
4	"Rec. X.721 | ISO/IEC 10165-2 : 1992": packages	{2 9 3 2 7 66}	SET OF OBJECT IDENTIFIER	o		c1		-		-		-		-		
5	tcpActiveOpens	{1 2 124 360501 14 1 1 3 6 1 2 1 6 5}		m		m		-		-		-		-		
6	tcpAttemptFails	{1 2 124 360501 14 1 1 3 6 1 2 1 6 7}		m		m		-		-		-		-		
7	tcpCurrEstab	{1 2 124 360501 14 1 1 3 6 1 2 1 6 9}		m		m		-		-		-		-		
8	tcpEstabResets	{1 2 124 360501 14 1 1 3 6 1 2 1 6 8}		m		m		-		-		-		-		
9	tcpId	{1 2 124 360501 14 15 1 3 6 1 2 1 6}	NULL	m		m		-		-		-		-		
10	tcpInErrs	{1 2 124 360501 14 1 1 3 6 1 2 1 6 14}		m		m		-		-		-		-		
11	tcpInSegs	{1 2 124 360501 14 1 1 3 6 1 2 1 6 10}		m		m		-		-		-		-		
12	tcpMaxConn	{1 2 124 360501 14 1 1 3 6 1 2 1 6 4}	INTEGER	m		m		-		-		-		-		
13	tcpOutRsts	{1 2 124 360501 14 1 1 3 6 1 2 1 6 15}		m		m		-		-		-		-		
14	tcpOutSegs	{1 2 124 360501 14 1 1 3 6 1 2 1 6 11}		m		m		-		-		-		-		
15	tcpPassiveOpens	{1 2 124 360501 14 1 1 3 6 1 2 1 6 6}		m		m		-		-		-		-		
16	tcpRetransSegs	{1 2 124 360501 14 1 1 3 6 1 2 1 6 12}		m		m		-		-		-		-		
17	tcpRtoAlgorithm	{1 2 124 360501 14 1 1 3 6 1 2 1 6 1}	INTEGER	m		m		-		-		-		-		
18	tcpRtoMax	{1 2 124 360501 14 1 1 3 6 1 2 1 6 3}	INTEGER	m		m		-		-		-		-		
19	tcpRtoMin	{1 2 124 360501 14 1 1 3 6 1 2 1 6 2}	INTEGER	m		m		-		-		-		-		

Table A.15.4 tcp Attribute group support

There are no attribute groups specified for this managed object class.

Table A.15.5 tcp Action support

There are no actions specified for this managed object class.

Table A.15.6 tcp Notification support

There are no notifications specified for this managed object class.

Table A.15.7 tcp Parameter support

There are no parameters specified for this managed object class.

Table A.15.8 tcp Conditions

Condition number	Condition	Reference
c1	IF "any registered package, other than this package has been instantiated" THEN m ELSE -	A.15.2/2

Table A.15.9 tcp Name Binding support

Index	Name binding template label	Value of object identifier for name binding	Contraints and values	Status	Support	Additional information	Subindex	Operation	Constraints and values	Status	Support	Additional information
1	tcp-systemNB	{1 2 124 360501 14 4 1 3 6 1 2 1 6}	Superior class: "Rec. X.721 | ISO/IEC 10165-2 : 1992": Superior class: system AND SUBCLASSES	o			1.1	Create support		-		
							1.2	Create with reference object		-		
							1.3	Create with automatic instance naming		-		
							1.4	Delete support		-		
							1.5	Delete only if no contained objects		c:m		
							1.6	Delete contained objects		c:x		

A.16 TCPCONNENTRY [{IIMCRFC12131354}]

Table A.16.1 tcpConnEntry 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	tcpConnEntry	{1 2 124 360501 14 1 1 3 6 1 2 1 6 13 1}		

Table A.16.2 tcpConnEntry PACKAGES

Index	Package template label	Value of object identifier for package	Constraints and values	Status	Support	Additional information
1	"Rec. X.721 | ISO/IEC 10165-2 : 1992": allomorphicPackage	{2 9 3 2 4 17}	"if an object supports allomorphism"	o		
2	"Rec. X.721 | ISO/IEC 10165-2 : 1992": packagesPackage	{2 9 3 2 4 16}	"any registered package, other than this package has been instantiated"	c1		
3	tcpConnEntryPkg		Mandatory	m		
4	"Rec. X.721 | ISO/IEC 10165-2 : 1992": topPackage		Mandatory	m		

Table A.16.3 tcpConnEntry Attribute support

				Set by create		Get		Replace		Add		Remove		Set to default		
Index	Attribute template label	Value of object identifier for attribute	Constraints and values	Status	Support	Status	Support	Status	Support	Status	Support	Status	Support	Status	Support	Additional information
1	"Rec. X.721 | ISO/IEC 10165-2 : 1992": allomorphs	{2 9 3 2 7 50}	SET OF ObjectClass	-		o		-		-		-		-		
2	"Rec. X.721 | ISO/IEC 10165-2 : 1992": nameBinding	{2 9 3 2 7 63}	OBJECT IDENTIFIER	o		m		-		-		-		-		
3	"Rec. X.721 | ISO/IEC 10165-2 : 1992": objectClass	{2 9 3 2 7 65}	ObjectClass	-		m		-		-		-		-		
4	"Rec. X.721 | ISO/IEC 10165-2 : 1992": packages	{2 9 3 2 7 66}	SET OF OBJECT IDENTIFIER	o		c1		-		-		-		-		
5	tcpConnEntryId	{1 2 124 360501 14 15 1 3 6 1 2 1 6 13 1}	SEQUENCE	m		m		-		-		-		-		
6	tcpConnLocalAddress	{1 2 124 360501 14 1 1 3 6 1 2 1 6 13 1 2}		m		m		-		-		-		-		
7	tcpConnLocalPort	{1 2 124 360501 14 1 1 3 6 1 2 1 6 13 1 3}	INTEGER	m		m		-		-		-		-		
8	tcpConnRemAddress	{1 2 124 360501 14 1 1 3 6 1 2 1 6 13 1 4}		m		m		-		-		-		-		
9	tcpConnRemPort	{1 2 124 360501 14 1 1 3 6 1 2 1 6 13 1 5}	INTEGER	m		m		-		-		-		-		
10	tcpConnState	{1 2 124 360501 14 1 1 3 6 1 2 1 6 13 1 1}	INTEGER	m		m		m		-		-		-		

Table A.16.4 tcpConnEntry Attribute group support

There are no attribute groups specified for this managed object class.

Table A.16.5 tcpConnEntry Action support

There are no actions specified for this managed object class.

Table A.16.6 tcpConnEntry Notification support

There are no notifications specified for this managed object class.

Table A.16.7 tcpConnEntry Parameter support

There are no parameters specified for this managed object class.

Table A.16.8 tcpConnEntry Conditions

Condition number	Condition	Reference
c1	IF "any registered package, other than this package has been instantiated" THEN m ELSE -	A.16.2/2

Table A.16.9 tcpConnEntry Name Binding support

Index	Name binding template label	Value of object identifier for name binding	Contraints and values	Status	Support	Additional information	Subindex	Operation	Constraints and values	Status	Support	Additional information
1	tcpConnEntry-tcpNB	{1 2 124 360501 14 4 1 3 6 1 2 1 6 13 1}	Superior class: tcp AND SUBCLASSES	o			1.1	Create support		-		
							1.2	Create with reference object		-		
							1.3	Create with automatic instance naming		-		
							1.4	Delete support		-		
							1.5	Delete only if no contained objects		c:m		
							1.6	Delete contained objects		c:x		

A.17 UDP [{IIMCRFC12131354}]

Table A.17.1 udp 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	udp	{1 2 124 360501 14 1 1 3 6 1 2 1 7}		

Table A.17.2 udp PACKAGES

Index	Package template label	Value of object identifier for package	Constraints and values	Status	Support	Additional information
1	"Rec. X.721 | ISO/IEC 10165-2 : 1992": allomorphicPackage	{2 9 3 2 4 17}	"if an object supports allomorphism"	o		
2	"Rec. X.721 | ISO/IEC 10165-2 : 1992": packagesPackage	{2 9 3 2 4 16}	"any registered package, other than this package has been instantiated"	c1		
3	"Rec. X.721 | ISO/IEC 10165-2 : 1992": topPackage		Mandatory	m		
4	udpPkg		Mandatory	m		

Table A.17.3 udp Attribute support

				Set by create		Get		Replace		Add		Remove		Set to default		
Index	Attribute template label	Value of object identifier for attribute	Constraints and values	Status	Support	Status	Support	Status	Support	Status	Support	Status	Support	Status	Support	Additional information
1	"Rec. X.721 | ISO/IEC 10165-2 : 1992": allomorphs	{2 9 3 2 7 50}	SET OF ObjectClass	-		o		-		-		-		-		
2	"Rec. X.721 | ISO/IEC 10165-2 : 1992": nameBinding	{2 9 3 2 7 63}	OBJECT IDENTIFIER	o		m		-		-		-		-		
3	"Rec. X.721 | ISO/IEC 10165-2 : 1992": objectClass	{2 9 3 2 7 65}	ObjectClass	-		m		-		-		-		-		
4	"Rec. X.721 | ISO/IEC 10165-2 : 1992": packages	{2 9 3 2 7 66}	SET OF OBJECT IDENTIFIER	o		c1		-		-		-		-		
5	udpId	{1 2 124 360501 14 15 1 3 6 1 2 1 7}	NULL	m		m		-		-		-		-		
6	udpInDatagrams	{1 2 124 360501 14 1 1 3 6 1 2 1 7 1}		m		m		-		-		-		-		
7	udpInErrors	{1 2 124 360501 14 1 1 3 6 1 2 1 7 3}		m		m		-		-		-		-		
8	udpNoPorts	{1 2 124 360501 14 1 1 3 6 1 2 1 7 2}		m		m		-		-		-		-		
9	udpOutDatagrams	{1 2 124 360501 14 1 1 3 6 1 2 1 7 4}		m		m		-		-		-		-		

Table A.17.4 udp Attribute group support

There are no attribute groups specified for this managed object class.

Table A.17.5 udp Action support

There are no actions specified for this managed object class.

Table A.17.6 udp Notification support

There are no notifications specified for this managed object class.

Table A.17.7 udp Parameter support

There are no parameters specified for this managed object class.

Table A.17.8 udp Conditions

Condition number	Condition	Reference
c1	IF "any registered package, other than this package has been instantiated" THEN m ELSE -	A.17.2/2

Table A.17.9 udp Name Binding support

Index	Name binding template label	Value of object identifier for name binding	Contraints and values	Status	Support	Additional information	Subindex	Operation	Constraints and values	Status	Support	Additional information
1	udp-systemNB	{1 2 124 360501 14 4 1 3 6 1 2 1 7}	Superior class: "Rec. X.721 | ISO/IEC 10165-2 : 1992": Superior class: system AND SUBCLASSES	o			1.1	Create support		-		
							1.2	Create with reference object		-		
							1.3	Create with automatic instance naming		-		
							1.4	Delete support		-		
							1.5	Delete only if no contained objects		c:m		
							1.6	Delete contained objects		c:x		

A.18 UDPENTRY [{IIMCRFC12131354}]

Table A.18.1 udpEntry 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 t which conformance is claimed? (Y/N)
1	udpEntry	{1 2 124 360501 14 1 1 3 6 1 2 1 7 5 1}		

Table A.18.2 udpEntry PACKAGES

Index	Package template label	Value of object identifier for package	Constraints and values	Status	Support	Additional information
1	"Rec. X.721 | ISO/IEC 10165-2 : 1992": allomorphicPackage	{2 9 3 2 4 17}	"if an object supports allomorphism"	o		
2	"Rec. X.721 | ISO/IEC 10165-2 : 1992": packagesPackage	{2 9 3 2 4 16}	"any registered package, other than this package has been instantiated"	c1		
3	"Rec. X.721 | ISO/IEC 10165-2 : 1992": topPackage		Mandatory	m		
4	udpEntryPkg		Mandatory	m		

Table A.18.3 udpEntry Attribute support

				Set by create		Get		Replace		Add		Remove		Set to default		
Index	Attribute template label	Value of object identifier for attribute	Constraints and values	Status	Support	Status	Support	Status	Support	Status	Support	Status	Support	Status	Support	Additional information
1	"Rec. X.721 | ISO/IEC 10165-2 : 1992": allomorphs	{2 9 3 2 7 50}	SET OF ObjectClass	-		o		-		-		-		-		
2	"Rec. X.721 | ISO/IEC 10165-2 : 1992": nameBinding	{2 9 3 2 7 63}	OBJECT IDENTIFIER	o		m		-		-		-		-		
3	"Rec. X.721 | ISO/IEC 10165-2 : 1992": objectClass	{2 9 3 2 7 65}	ObjectClass	-		m		-		-		-		-		
4	"Rec. X.721 | ISO/IEC 10165-2 : 1992": packages	{2 9 3 2 7 66}	SET OF OBJECT IDENTIFIER	o		c1		-		-		-		-		
5	udpEntryId	{1 2 124 360501 14 15 1 3 6 1 2 1 7 5 1}	SEQUENCE	m		m		-		-		-		-		
6	udpLocalAddress	{1 2 124 360501 14 1 1 3 6 1 2 1 7 5 1 1}		m		m		-		-		-		-		
7	udpLocalPort	{1 2 124 360501 14 1 1 3 6 1 2 1 7 5 1 2}	INTEGER	m		m		-		-		-		-		

Table A.18.4 udpEntry Attribute group support

There are no attribute groups specified for this managed object class.

Table A.18.5 udpEntry Action support

There are no actions specified for this managed object class.

Table A.18.6 udpEntry Notification support

There are no notifications specified for this managed object class.

Table A.18.7 udpEntry Parameter support

There are no parameters specified for this managed object class.

Table A.18.8 udpEntry Conditions

Condition number	Condition	Reference
c1	IF "any registered package, other than this package has been instantiated" THEN m ELSE -	A.18.2/2

Table A.18.9 udpEntry Name Binding support

Index	Name binding template label	Value of object identifier for name binding	Contraints and values	Status	Support	Additional information	Subindex	Operation	Constraints and values	Status	Support	Additional information
1	udpEntry-udpNB	{1 2 124 360501 14 4 1 3 6 1 2 1 7 5 1}	Superior class: udp AND SUBCLASSES	o			1.1	Create support		-		
							1.2	Create with reference object		-		
							1.3	Create with automatic instance naming		-		
							1.4	Delete support		-		
							1.5	Delete only if no contained objects		c:m		
							1.6	Delete contained objects		c:x		

ANNEX B: GLOSSARY

ASN.1	Abstract Syntax Notation One
CCITT	Consultative Committee on Telephony and Telegraphy
CMIP	Common Management Information Protocol
CMIS	Common Management Information Service
GDMO	Guidelines for the Definition of Managed Objects
GNMP	Government Network Management Profile
IIMC	ISO/CCITT and Internet Management Coexistence
ISO	International Standards Organization
MIB	Management Information Base
MOCS	Managed Object Conformance Statement
NMF	Network Management Forum
OID	Object Identifier
OSI	Open Systems Interconnection
PDU	Protocol Data Unit
RFC	Request For Comments
SMI	Structure of Management Information
SNMP	Simple Network Management Protocol
SNMPv1	Simple Network Management Protocol Version 1
SNMPv2	Simple Network Management Protocol Version 2
TCP/IP	Transmission Control Protocol/Internetwork Protocol

ANNEX C: REFERENCES

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