ISO/CCITT and Internet Management Coexistence (IIMC):

Translation of Internet MIB-II (RFC1213)

to ISO/CCITT GDMO MIB

(IIMCMIB-II)

Draft 2
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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 [RFC1213], according to the procedures defined in "Translation of Internet MIBs to ISO/CCITT GDMO MIBs" [IIMCIMIBTRANS]. In addition, this document includes a translated IPForwarding Table as derived from the Internet definition in [RFC1354].

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Revision History

Draft 0 - October 9, 1992
Initial draft of this document.

Draft 1 - March 26, 1993
Previous draft of this document (replaced Draft 0).

Draft 2 - May 26, 1993
Current draft of this document (replaces Draft 1).

Major Changes Since Last Revision

1. Aligned templates with changes as per [IIMCIMIBTRANS].
   - Added scannable BEHAVIOUR to all templates.
   - Changed CREATE modifiers
   - Changed property-labels for attributes used for naming (INDEX) and attributes used for SNMP creation/deletion to GET only.
   - Removed the CREATEDELETEATT and CREATEDELETEVALUE constructs from the scannable behaviour clause for table entry templates. All information required for creation/deletion via either CMIP or SNMP is contained in the scannable behaviour clauses in the name binding templates.
2. Changed section organization to facilitate machine parsing of text.
3. Moved ipForwardNumber to the ip managed object class from the ipForwardTable managed object; see Appendix B for discussion.

Outstanding Issues

1. The ipForwardNumber attribute has been moved to the ip object class. This raises questions about if or how this should be done, non-naming attributes in conceptual tables, conditional packages and their registration, and leaving out object types during the translation process. Comments on this are solicited during review; see Appendix B for discussion.

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) [ISO9596-1], and related SMI documents [ISO10165-1,2,4].

- The Internet community developed the Simple Network Management Protocol (SNMP) [RFC1157], and its successor, SNMPv2 [RFC1448]. The Internet SMI is defined in [RFC1155] and [RFC1442].

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 components 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), 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

This document is part of a package of ISO/CCITT and Internet Management Coexistence (IIMC) drafts. Documents included in this package are:

[IIMCIMIBTRANS]	Translation of Internet MIBs to ISO/CCITT GDMO MIBs
[IIMCOMIBTRANS]	Translation of ISO/CCITT GDMO MIBs to Internet MIBs
[IIMCMIB-II]	Translation of Internet MIB-II (RFC1213) to ISO/CCITT GDMO MIB
[IIMCPROXY]	ISO/CCITT to Internet Management Proxy
[IIMCSEC]	ISO/CCITT to Internet Management Security

These documents together comprise a package aimed at integrating ISO/CCITT-based and Internet-based management systems. These documents represent coexistence and interworking efforts underway within the IIMC working group, chartered under the auspices of the Network Management Forum Architecture Integration ISO/Internet (AIII) technical team.

The IIMC intends to 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" [NMFTR107]. The documents included in the IIMC package are the next level of detailed specifications which implement several of the methodologies identified in the strategy.

1.3 MIB Translation Procedures

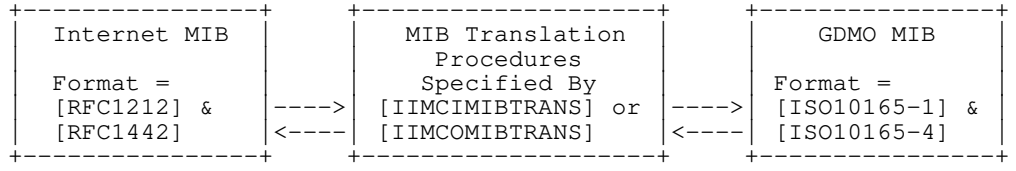
The foundation of IIMC is provided by a pair of Management Information Base (MIB) translation procedures.

- [IIMCIMIBTRANS] specifies translation procedures for converting MIBs from Internet MIB macro format into

ISO/CCITT GDMO template format.

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

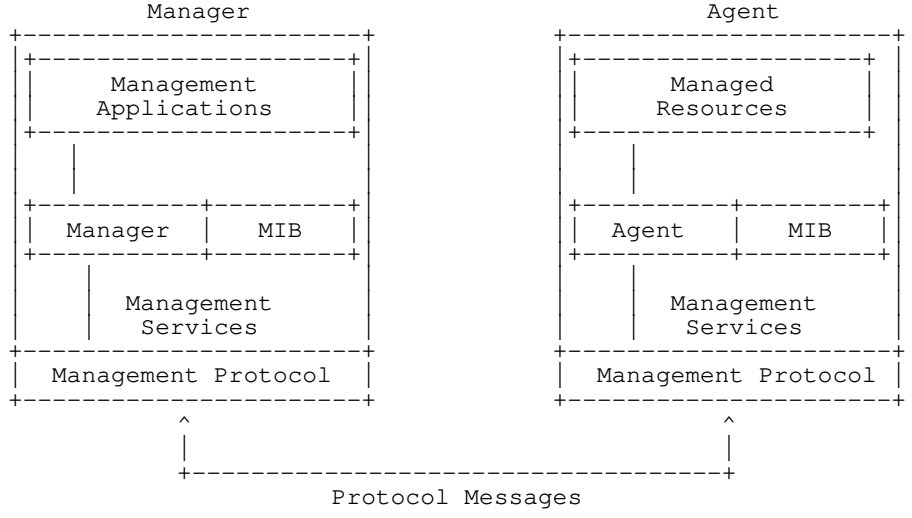
The IIMC approach is to specify direct translation procedures which yield a pair of functionally-equivalent MIBs, as shown in the following figure.



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.

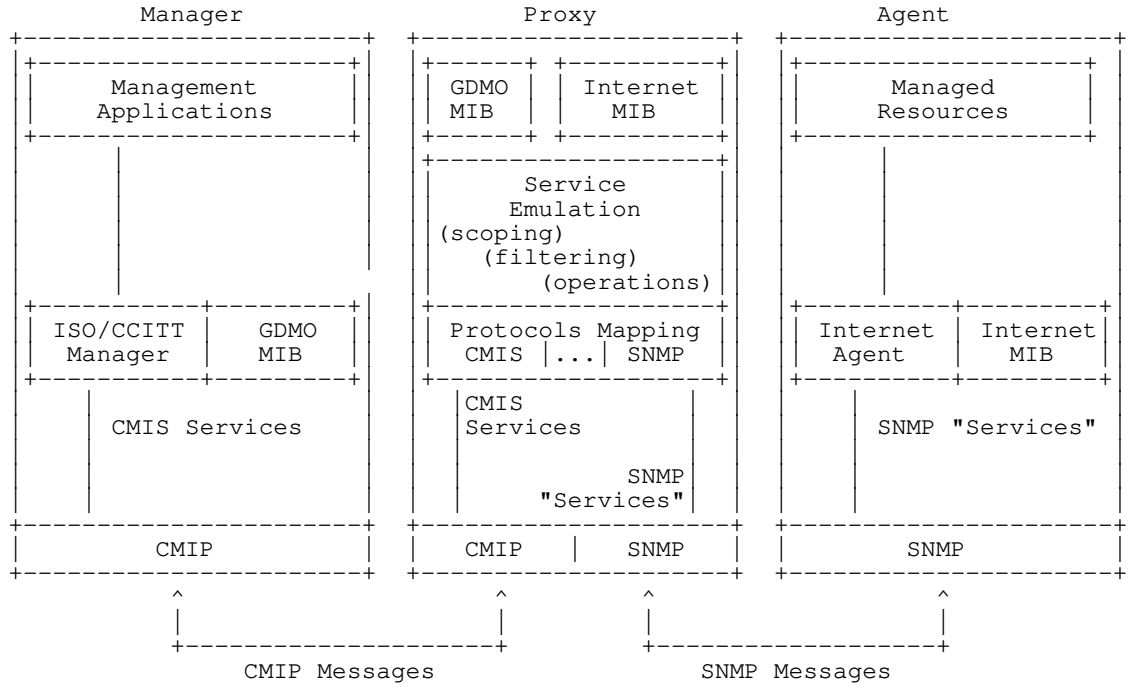


Within IIMC documents, this model is referred to as the "native" management model. MIBs translated using IIMC procedures can be used by "native" agent implementations. For example, an ISO/CCITT agent can make visible TCP/IP managed resources using the translated GDMO version of the Internet MIB-II [RFC1213] specified by [IIMCMIB-II]. 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 [IIMCPROXY]. A similar approach could also be taken to specify an Internet to ISO/CCITT proxy, although no such IIMC document is currently specified.



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 CMIS 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) [RFC1155] [RFC1442] into MIBs defined according to the ISO SMI [ISO 10164-1] and Guidelines for the Definition of Managed Objects (GDMO) [ISO 10165-4]. Procedures for such translations are described in [IIMCIMIBTRANS].

This document (IIMCMIB-II) applies the procedures described in [IIMCIMIBTRANS]to the translation and registration of the Internet MIB-II as defined in [RFC1213], and to the IP Forwarding Table defined in [RFC1354].

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 [IIMCIMIBTRANS].

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.

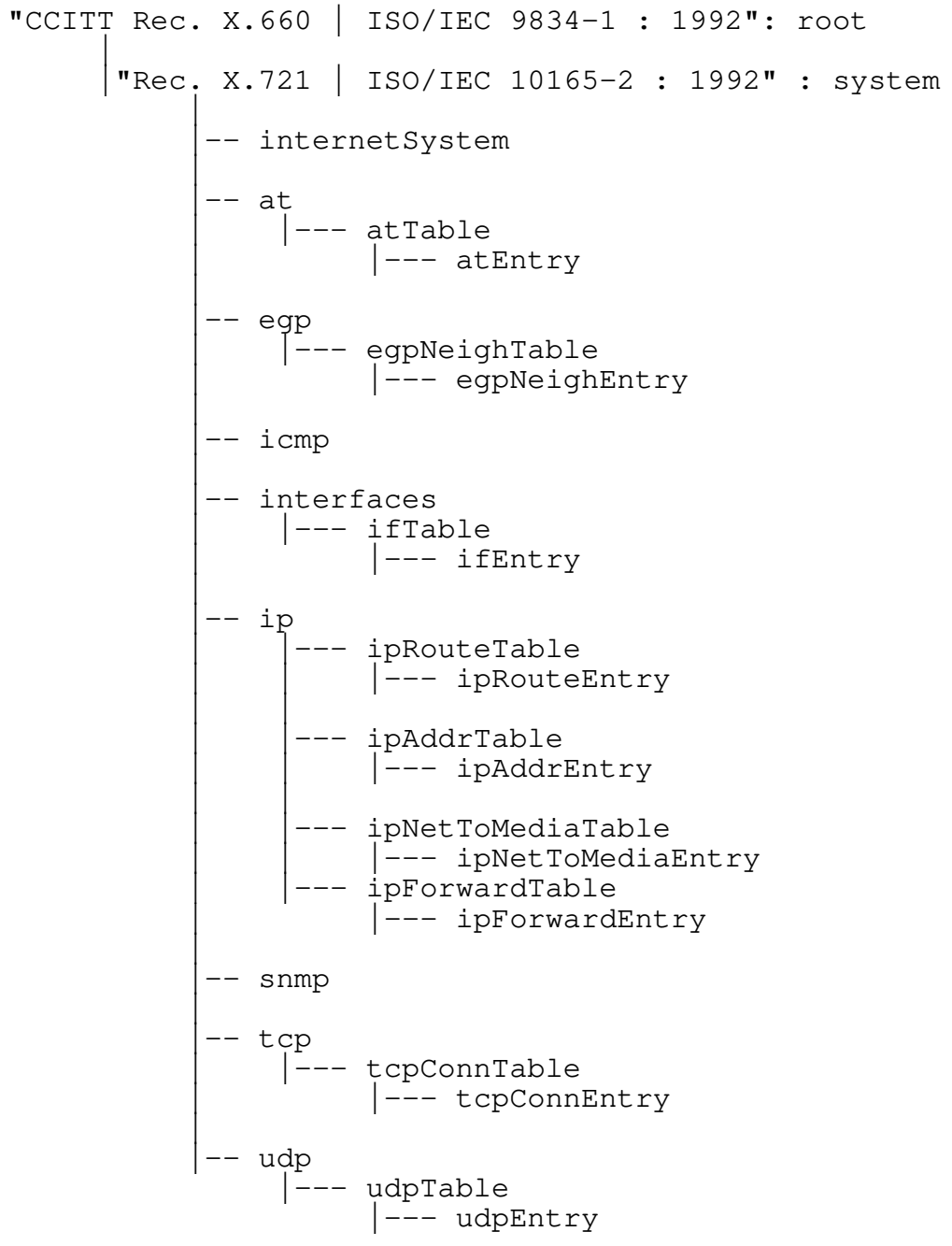
2. IIMCMIB-II MIB

The Internet MIB-II objects [RFC1213] are recast into ISO/CCITT GDMO templates as defined in [ISO10165-4], and registered, using the procedures defined in [IIMCIMIBTRANS].

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.

```
iimcMIBII OBJECT IDENTIFIER ::=
                    {iimcManagementDocAuto 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. See RFC 1213 for attribute
                    semantics.!!;
          ENDPARSE!;;
          ATTRIBUTES
          {iimcManagementDocMan 1}:internetClassId GET;;;
REGISTERED AS  { iimcAutoTrans 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.  See RFC 1213
                    for attribute semantics.!!;
          INDEX atIfIndex
                atNetAddress;
          ENDPARSE
          The delete value is the null string.!;;
          ATTRIBUTES
          {iimcManagementDocMan 1}:internetClassId  GET,
          atIfIndex           GET,
          atPhysAddress       GET,
          atNetAddress        GET;;;
REGISTERED AS  { iimcAutoTrans 1 3 6 1 2 1 3 1 1 };
```

```
atTable  MANAGED OBJECT CLASS
       DERIVED FROM "Rec. X.721 | ISO/IEC 10165-2:1992":top;
       CHARACTERIZED BY
             atTablePkg PACKAGE
             BEHAVIOUR
          atTablePkgBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
           REFERENCE !!This managed object class maps to
                    atTable object with object id {at 1}
                    in RFC1213.!!;
          CONCEPTUALTABLE
          ENDPARSE!;;
          ATTRIBUTES
          {iimcManagementDocMan 1}:internetClassId  GET;;;
REGISTERED AS  { iimcAutoTrans 1 3 6 1 2 1 3 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.
          See RFC 1213 for attribute semantics.!!;
          ENDPARSE!;;
          ATTRIBUTES
          {iimcManagementDocMan 1}:internetClassId GET,
          egpInMsgs                GET,
          egpInErrors                   GET,
          egpOutMsgs               GET,
          egpOutErrors                  GET,
          egpAs                    GET;;;
REGISTERED AS  { iimcAutoTrans 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. See RFC 1213
               for attribute semantics.!!;
          INDEX egpNeighAddr;
          ENDPARSE!;;
          ATTRIBUTES
```

```
          {iimcManagementDocMan 1}:internetClassId 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  { iimcAutoTrans 1 3 6 1 2 1 8 5 1 };

egpNeighTable MANAGED OBJECT CLASS
     DERIVED FROM   "Rec. X.721 | ISO/IEC 10165-2:1992":top;
          CHARACTERIZED BY
               egpNeighTablePkg PACKAGE
                   BEHAVIOUR
               egpNeighTablePkgBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE !!This managed object class maps to
          egpNeighTable object with object id {egp 5} in
          RFC 1213. See RFC 1213 for attribute semantics.!!;
          CONCEPTUALTABLE
          ENDPARSE!;;
          ATTRIBUTES
          {iimcManagementDocMan 1}:internetClassId  GET;;;
REGISTERED AS  { iimcAutoTrans 1 3 6 1 2 1 8 5 };

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.
          See RFC 1213 for attribute semantics.!!;
          ENDPARSE!;;
          ATTRIBUTES
          {iimcManagementDocMan 1}:internetClassId     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  { iimcAutoTrans 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. See RFC 1213 for
                     attribute semantics.!!;
          INDEX ifIndex;
          ENDPARSE!;;
          ATTRIBUTES
          {iimcManagementDocMan 1}:internetClassId 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  {iimcAutoTrans 1 3 6 1 2 1 2 2 1 };

ifTable MANAGED OBJECT CLASS
     DERIVED FROM  "Rec. X.721 | ISO/IEC 10165-2:1992":top;
          CHARACTERIZED BY
               ifTablePkg PACKAGE
                   BEHAVIOUR
               ifTablePkgBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE !!This managed object class maps to the
          ifTable object with object id {interface 2} in RFC
          1213.!!;
          CONCEPTUALTABLE
          ENDPARSE!;;
          ATTRIBUTES
          {iimcManagementDocMan 1}:internetClassId GET;;;
REGISTERED AS  { iimcAutoTrans 1 3 6 1 2 1 2 2 };

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. See RFC 1213 for attribute semantics.!!;
          ENDPARSE!;;
          ATTRIBUTES
          {iimcManagementDocMan 1}:internetClassId GET,
          ifNumber                       GET;;;
REGISTERED AS  { iimcAutoTrans 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. See RFC 1213 for attribute semantics.!!;
```

```
          DESCRIPTION !!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
          {iimcManagementDocMan 1}: internetClassId GET,
          sysDescr                        GET,
          sysObjectId                     GET,
          sysUpTime                       GET,
          sysContact                      GET-REPLACE,
          sysName                         GET,
          sysLocation                     GET-REPLACE,
          sysServices                     GET;
          NOTIFICATIONS
          {iimcManagementDocMan 1}:internetAlarm;;;
REGISTERED AS   {iimcAutoTrans 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.  See RFC 1213 and RFC 1354 for attribute
          semantics.!!;
          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
          {iimcManagementDocMan 1}: internetClassId 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  { iimcAutoTrans 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. See RFC 1213
               for attribute semantics.!!;
          INDEX ipAdEntAddr;
          ENDPARSE!;;
          ATTRIBUTES
          {iimcManagementDocMan 1}: internetClassId GET,
          ipAdEntAddr                   GET,
          ipAdEntIfIndex                GET,
          ipAdEntNetMask           GET,
          ipAdEntBcastAddr         GET,
          ipAdEntReasmMaxSize           GET;;;
REGISTERED AS  { iimcAutoTrans 1 3 6 1 2 1 4 20 1};

ipAddrTable MANAGED OBJECT CLASS
   DERIVED FROM "Rec. X.721 | ISO/IEC 10165-2:1992":top;
          CHARACTERIZED BY
               ipAddrTablePkg PACKAGE
                   BEHAVIOUR
               ipAddrTablePkgBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE !!This managed object class maps to the
          ipAddrTable object with object id {ip 20} in
          RFC 1213. See RFC 1213 for attribute semantics.!!;
          CONCEPTUALTABLE
          ENDPARSE!;;
          ATTRIBUTES
```

```
          {iimcManagementDocMan 1}:internetClassId GET;;;
REGISTERED AS  { iimcAutoTrans 1 3 6 1 2 1 4 20};

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 !!A particular route to  a particular
                     destination, under a particular
                     policy.  See RFC1354 for semantics!!;
          INDEX   ipForwardDest,
                  ipForwardProto,
                  ipForwardPolicy,
                  ipForwardNextHop;
          ENDPARSE!;;
          ATTRIBUTES
          {iimcManagementDocMan 1}: internetClassId GET,
          ipForwardDest             GET,
          ipForwardMask             GET-REPLACE,
          ipForwardPolicy           GET,
          ipForwardNextHop          GET,
          ipForwardIfIndex          GET-REPLACE,
          ipForwardType             GET,
          ipForwardProto            GET,
          ipForwardAge              GET,
          ipForwardInfo             GET-REPLACE,
          ipForwardNextHopAS        GET-REPLACE,
          ipForwardMetric1          GET-REPLACE,
          ipForwardMetric2          GET-REPLACE,
          ipForwardMetric3          GET-REPLACE,
          ipForwardMetric4          GET-REPLACE,
          ipForwardMetric5          GET-REPLACE;;;
REGISTERED AS  { iimcAutoTrans 1 3 6 1 2 1 424 2  1};

ipForwardTable  MANAGED OBJECT CLASS
   DERIVED FROM "Rec. X.721 | ISO/IEC 10165-2:1992":top;
          CHARACTERIZED BY
               ipForwardTablePkg PACKAGE
                   BEHAVIOUR
               ipForwardTableBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE !!See RFC1354 for semantics.!!;
          DESCRIPTION !!This entity's IP Routing table. RFC
          1213 Section 6.6, the IP Group.  The IP
          Forwarding Table obsoletes and replaces the
          ipRouteTable current in MIB-I and MIB-II.  It
          adds knowledge of the autonomous system of the
          next hop, multiple next hop support, and policy
          routing support.
```

```
          The ipForwardNumber attribute contains the
          number of entries in the table.!!;
          CONCEPTUALTABLE
          ENDPARSE!;;
          ATTRIBUTES
          {iimcManagementDocMan 1}:internetClassId GET;;;
REGISTERED AS  { iimcAutoTrans 1 3 6 1 2 1 4 24 2 };

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. See
                     RFC 1213 for attribute semantics.!!;
          INDEX ipNetToMediaIfIndex,
                ipNetToMediaNetAddress;
          ENDPARSE!;;
          ATTRIBUTES
          {iimcManagementDocMan 1}:internetClassId     GET,
          ipNetToMediaIfIndex           GET,
          ipNetToMediaPhysAddress       GET-REPLACE,
          ipNetToMediaNetAddress        GET,
          ipNetToMediaType              GET;;;
REGISTERED AS  { iimcAutoTrans 1 3 6 1 2 1 4 22 1};

ipNetToMediaTable MANAGED OBJECT CLASS
   DERIVED FROM "Rec. X.721 | ISO/IEC 10165-2:1992":top;
          CHARACTERIZED BY
               ipNetToMediaTablePkg PACKAGE
                   BEHAVIOUR
               ipNetToMediaTablePkgBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE !!This managed object class maps to the
          ipNetToMediaTable object with object id {ip 22} in
          RFC 1213. See RFC 1213 for attribute semantics.!!;
          CONCEPTUALTABLE
          ENDPARSE!;;
          ATTRIBUTES
          {iimcManagementDocMan 1}:internetClassId     GET;;;
REGISTERED AS  { iimcAutoTrans 1 3 6 1 2 1 4 22};

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. See RFC
                    1213 for attribute semantics.!!;
          INDEX ipRouteDest;
          ENDPARSE!;;
          ATTRIBUTES
          {iimcManagementDocMan 1}: internetClassId GET,
          ipRouteDest                    GET,
          ipIfIndex                      GET-REPLACE,
     ipRouteMetric1                GET-REPLACE,
          ipRouteMetric2                 GET-REPLACE,
          ipRouteMetric3                 GET-REPLACE,
          ipRouteMetric4                 GET-REPLACE,
          ipRouteMetric5                 GET-REPLACE,
          ipRouteNextHop                 GET-REPLACE,
          ipRouteType                    GET,
          ipRouteProto                   GET,
          ipRouteAge                     GET-REPLACE,
          ipRouteMask                    GET-REPLACE,
          ipRouteInfo                    GET-REPLACE;;;
REGISTERED AS  { iimcAutoTrans 1 3 6 1 2 1 4 21 1};

ipRouteTable MANAGED OBJECT CLASS
   DERIVED FROM "Rec. X.721 | ISO/IEC 10165-2:1992":top;
          CHARACTERIZED BY
               ipRouteTablePkg PACKAGE
                   BEHAVIOUR
               ipRouteTablePkgBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE !!This managed object class maps to the
          ipRouteTable object with object id {ip 21} in
          RFC 1213. See RFC 1213 for attribute semantics.!!;
          CONCEPTUALTABLE
          ENDPARSE!;;
          ATTRIBUTES
          {iimcManagementDocMan 1}:internetClassId GET;;;
REGISTERED AS  { iimcAutoTrans 1 3 6 1 2 1 4 21};

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 objectid {mib-2 11} in RFC 1213.
          See RFC 1213 for attribute semantics.!!;
          ENDPARSE!;;
```

```
          ATTRIBUTES
          {iimcManagementDocMan 1}:internetClassId GET,
          snmpInPkts                      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,
          snmpOutPkts                     GET,
          snmpOutTooBigs                  GET,
          snmpOutNoSuchNames              GET,
          snmpOutBadValues                GET,
          snmpOutGenErrs                  GET,
          snmpOutGetRequests              GET,
          snmpOutGetNexts                 GET,
          snmpOutSetRequests              GET,
          snmpOutGetResponses             GET,
          snmpOutTraps                    GET,
          snmpEnableAuthTraps             GET-REPLACE;;;
REGISTERED AS  {iimcAutoTrans 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.
          See RFC 1213 for attribute semantics.!!;
          ENDPARSE!;;
          ATTRIBUTES
          {iimcManagementDocMan 1}:internetClassId 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 { iimcAutoTrans 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. See RFC
                    1213 for attribute semantics.!!;
          INDEX tcpConnLocalAddress,
                tcpConnLocalPort,
                tcpConnRemAddress,
                tcpConnRemPort;
          ENDPARSE!;;
          ATTRIBUTES
          {iimcManagementDocMan 1}:internetClassId GET,
          tcpConnState                    GET-REPLACE,
          tcpConnLocalAddress             GET,
          tcpConnLocalPort                GET,
          tcpConnRemAddress               GET,
          tcpConnRemPort                  GET;;;
REGISTERED AS { iimcAutoTrans 1 3 6 1 2 1 6 13 1};

tcpConnTable MANAGED OBJECT CLASS
   DERIVED FROM "Rec. X.721 | ISO/IEC 10165-2:1992":top;
          CHARACTERIZED BY
               tcpConnTablePkg PACKAGE
                   BEHAVIOUR
               tcpConnTablePkgBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE !!This managed object class maps to the
          tcpConnTable object with object id {tcp 13} in
          RFC 1213. See RFC 1213 for attribute semantics.!!;
          CONCEPTUALTABLE
          ENDPARSE!;;
          ATTRIBUTES
          {iimcManagementDocMan 1}:internetClassId GET;;;
REGISTERED AS { iimcAutoTrans 1 3 6 1 2 1 6 13};

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.
            See RFC 1213 for attribute semantics.!!;
            ENDPARSE!;;
            ATTRIBUTES
            {iimcManagementDocMan 1}:internetClassId GET,
            udpInDatagrams                GET,
            udpNoPorts                    GET,
            udpInErrors                   GET,
            udpOutDatagrams               GET;;;
REGISTERED AS  { iimcAutoTrans 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. See RFC 1213 for
                       attribute semantics.!!;
            INDEX udpLocalAddress,
                  udpLocalPort;
            ENDPARSE!;;
            ATTRIBUTES
            {iimcManagementDocMan 1}:internetClassId GET,
            udpLocalAddress                    GET,
            udpLocalPort                       GET;;;
REGISTERED AS { iimcAutoTrans 1 3 6 1 2 1 7 5 1};

udpTable MANAGED OBJECT CLASS
   DERIVED FROM "Rec. X.721 | ISO/IEC 10165-2:1992":top;
            CHARACTERIZED BY
                udpTablePkg PACKAGE
                    BEHAVIOUR
                udpTablePkgBehaviour BEHAVIOUR
            DEFINED AS
            !BEGINPARSE
            REFERENCE !!This managed object class maps to the
            udpTable object with object id {udp 5} in
            RFC 1213. See RFC 1213 for attribute semantics.!!;
            CONCEPTUALTABLE
            ENDPARSE!;;
            ATTRIBUTES
            {iimcManagementDocMan 1}:internetClassId GET;;;
REGISTERED AS { iimcAutoTrans 1 3 6 1 2 1 7 5};
```

-- 2.1.2 IIMCMIB-II Attributes

```
atIfIndex ATTRIBUTE
     WITH ATTRIBUTE SYNTAX  IIMCRFC1213ASN1.Integer;
     MATCHES FOR      EQUALITY, ORDERING;
     BEHAVIOUR
          atIfIndexBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE !!This attribute maps to atIfIndex with
          object id {atEntry 1} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 3  1 1 1};

atNetAddress ATTRIBUTE
     DERIVED FROM  {iimcManagementDocMan 1}:ipAddress;
     BEHAVIOUR
          atNetAddressBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE !!This attribute maps to atNetAddress
          with object id {atEntry 3} in RFC1213. See RFC 1213
          for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 3  1 1 3};

atPhysAddress ATTRIBUTE
     DERIVED FROM  {iimcManagementDocMan 1}:physAddress;
     BEHAVIOUR
          atPhysAddressBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE !!This attribute maps to atPhysAddress
          with object id {atEntry 2} in RFC1213. See
          RFC 1213 for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 3  1 1 2};

egpAs   ATTRIBUTE
     WITH ATTRIBUTE SYNTAX  IIMCRFC1213ASN1.Integer;
     MATCHES FOR      EQUALITY, ORDERING;
     BEHAVIOUR
          egpAsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE !!This attribute maps to egpAs with
          object id {egp 6} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 8 6};
```

```
egpInErrors ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1}:counter32;
      BEHAVIOUR
          egpInErrorsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE !!This attribute maps to egpInErrors
          with object id {egp 2} in RFC1213. See
          RFC 1213 for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 8 2};

egpInMsgs  ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          egpInMsgsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE !!This attribute maps to egpInMsgs with
          object id {egp 1} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 8 1};

egpNeighAddr    ATTRIBUTE
     DERIVED FROM  {iimcManagementDocMan 1}:ipAddress;
     BEHAVIOUR
          egpNeighAddrBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE !!This attribute maps to egpNeighAddr
          with object id {egpNeighEntry 2} in RFC1213. See
          RFC 1213 for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 8 5 1 2};

egpNeighAs      ATTRIBUTE
     WITH ATTRIBUTE SYNTAX  IIMCRFC1213ASN1.Integer;
     MATCHES FOR      EQUALITY, ORDERING;
     BEHAVIOUR
          egpNeighAsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE !!This attribute maps to egpNeighAs with
          object id {egpNeighEntry 3} in RFC1213. See RFC
          1213 for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 8 5 1 3};

egpNeighEventTrigger    ATTRIBUTE
     WITH ATTRIBUTE SYNTAX
          IIMCRFC1213ASN1.EgpNeighEventTrigger;
     MATCHES FOR      EQUALITY;
```

```
     BEHAVIOUR
          egpNeighEventTriggerBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE !!This attribute maps to
          egpNeighEventTrigger with objectid {egpNeighEntry
          15} in RFC1213. See RFC 1213 for attribute
          semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 8 5 1 15};

egpNeighInErrMsgs       ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          egpNeighInErrMsgsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE !!This attribute maps to
          egpNeighInErrMsgs with object id {egpNeighEntry 8}
          in RFC1213. See RFC 1213 for attribute
          semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 8 5 1 8};

egpNeighInErrs  ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          egpNeighInErrsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE !!This attribute maps to egpNeighInErrs
          with object id {egpNeighEntry 5} in RFC1213. See
          RFC 1213 for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 8 5 1 5};

egpNeighInMsgs  ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          egpNeighInMsgsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE !!This attribute maps to egpNeighInMsgs
          with object id {egpNeighEntry 4} in RFC1213. See
          RFC 1213 for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 8 5 1 4};

egpNeighIntervalHello   ATTRIBUTE
     WITH ATTRIBUTE SYNTAX  IIMCRFC1213ASN1.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. See RFC 1213 for attribute
          semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 8 5 1 12};

egpNeighIntervalPoll    ATTRIBUTE
     WITH ATTRIBUTE SYNTAX  IIMCRFC1213ASN1.Integer;
     MATCHES FOR      EQUALITY, ORDERING;
     BEHAVIOUR
          egpNeighIntervalPollBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE !!This attribute maps to
          egpNeighIntervalPoll with object id {egpNeighEntry
          13} in RFC1213. See RFC 1213 for attribute
          semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 8 5 1 13};

egpNeighMode    ATTRIBUTE
     WITH ATTRIBUTE SYNTAX  IIMCRFC1213ASN1.EgpNeighMode;
     MATCHES FOR      EQUALITY;
     BEHAVIOUR
          egpNeighModeBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE !!This attribute maps to egpNeighMode
          with object id {egpNeighEntry 14} in RFC1213. See
          RFC 1213 for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 8 5 1 14};

egpNeighOutErrMsgs      ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          egpNeighOutErrMsgsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE !!This attribute maps to
          egpNeighOutErrMsgs with object id
          {egpNeighEntry 9} in RFC1213. See RFC 1213
          for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 8 5 1 9};

egpNeighOutErrs ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          egpNeighOutErrsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
```

```
          REFERENCE !!This attribute maps to egpNeighOutErrs
          with object id {egpNeighEntry 7} in RFC1213. See
          RFC 1213 for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 8 5 1 7};

egpNeighOutMsgs ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          egpNeighOutMsgsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE !!This attribute maps to egpNeighOutMsgs
          with object id {egpNeighEntry 6} in RFC1213. See
          RFC 1213 for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 8 5 1 6};

egpNeighState ATTRIBUTE
     WITH ATTRIBUTE SYNTAX
          IIMCRFC1213ASN1.EgpNeighState;
     MATCHES FOR      EQUALITY;
     BEHAVIOUR
          egpNeighStateBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE !!This attribute maps to egpNeighState
          with object id {egpNeighEntry 1} in RFC1213. See
          RFC 1213 for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 8 5 1 1};

egpNeighStateDowns      ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          egpNeighStateDownsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE !!This attribute maps to
          egpNeighStateDowns with object id {egpNeighEntry
          11} in RFC1213. See RFC 1213 for attribute
          semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 8 5 1 11};

egpNeighStateUps        ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          egpNeighStateUpsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE !!This attribute maps to egpNeighStateUps
          with object id {egpNeighEntry 10} in RFC1213. See
          RFC 1213 for attribute semantics.!!;
```

```
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 8 5 1 10};

egpOutErrors ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          egpOutErrorsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE !!This attribute maps to egpOutErrors
          with object id {egp 4} in RFC1213. See RFC 1213
          for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 8 4};

egpOutMsgs  ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          egpOutMsgsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to egpOutMsgs with object id
          {egp 3} in RFC1213. See RFC 1213 for attribute
          semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 8 3};

icmpInAddrMaskReps ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          icmpInAddrMaskRepsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to icmpInAddrMaskReps with
          object id {icmp 13} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 5 13};

icmpInAddrMasks ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          icmpInAddrMasksBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to icmpInAddrMasks with
          object id {icmp 12} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 5 12};
```

```
icmpInDestUnreachs ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          icmpInDestUnreachsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to icmpInDestUnreachs with
          object id {icmp 3} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 5 3};

icmpInEchoReps ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          icmpInEchoRepsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to icmpInEchoReps with object
          id {icmp 9} in RFC1213. See RFC 1213 for attribute
          semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 5 9};

icmpInEchos  ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          icmpInEchosBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to icmpInEchos with object
          id {icmp 8} in RFC 1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 5 8};

icmpInErrors ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          icmpInErrorsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to icmpInErrors with object
          id {icmp 2} in RFC1213. See RFC 1213 for attribute
          semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 5 2};

icmpInMsgs ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
```

```
     BEHAVIOUR
          icmpInMsgsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to icmpInMsgs with object id
          {icmp 1} in RFC1213. See RFC 1213 for attribute
          semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 5 1};

icmpInParmProbs ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          icmpInParmProbsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to icmpInParmProbs with
          object id {icmp 5} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 5 5};

icmpInRedirects ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          icmpInRedirectsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to icmpInRedirects with id
          {icmp 7} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 5 7};

icmpInSrcQuenchs ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          icmpInSrcQuenchsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to icmpInSrcQuenchs with
          object id {icmp 6} in RFC1213. See RFC 1213 for
          attribute semantics.!!
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 5 6};

icmpInTimeExcds ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          icmpInTimeExcdsBehaviour BEHAVIOUR
```

```
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to icmpInTimeExcds with
          object id {icmp 4} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 5 4};

icmpInTimestampReps ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          icmpInTimestampRepsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to icmpInTimestampReps with
          object id {icmp 11} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 5 11};

icmpInTimestamps ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          icmpInTimeStampsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to icmpInTimestamps with
          object id {icmp 10} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 5 10};

icmpOutAddrMaskReps ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          icmpOutAddrMaskRepsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to icmpOutAddrMaskReps with
          object id {icmp 26} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 5 26};

icmpOutAddrMasks ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          icmpOutAddrMasksBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
```

```
          REFERENCE
          !!This attribute map to icmpOutAddrMasks with
          object id{icmp 25} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 5 25};

icmpOutDestUnreachs ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          icmpOutDestUnreachsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to icmpOutDestUnreachs with
          object id {icmp 16} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 5 16};

icmpOutEchoReps  ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          icmpOutEchoRepsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to icmpOutEchoReps with
          object id {icmp 22} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 5 22};

icmpOutEchos ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          icmpOutEchosBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to icmpOutEchos with object
          id {icmp 21} in RFC1213. See RFC 1213 for attribute
          semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 5 21};

icmpOutErrors ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          icmpOutErrorsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to icmpOutErrors with object
```

```
          id {icmp 15} in RFC1213. See RFC 1213 for attribute
          semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 5 15};

icmpOutMsgs ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          icmpOutMsgsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to icmpOutMsgs with object
          id {icmp 14} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 5 14};

icmpOutParmProbs ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          icmpOutParmProbsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to icmpOutParmProbs with
          object id{icmp 18} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 5 18};

icmpOutRedirects ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          icmpOutRedirectsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to icmpOutRedirects with
          object id {icmp 20} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 5 20};

icmpOutSrcQuenchs ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          icmpOutSrcQuenchsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to icmpOutSrcQuenchs with
          object id {icmp 19} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
```

```
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 5 19};

icmpOutTimeExcds ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          icmpOutTimeExcdsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to icmpOutTimeExcds with
          object id {icmp 17} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 5 17};

icmpOutTimestampReps ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          icmpOutTimestampRepsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to icmpOutTimestampReps
          with object id {icmp 24} in RFC1213. See RFC 1213
          for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 5 24};

icmpOutTimestamps ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          icmpOutTimestampsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to icmpOutTimestamps with
          object id {icmp 23} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 5 23};

ifAdminStatus ATTRIBUTE
     WITH ATTRIBUTE SYNTAX
          IIMCRFC1213ASN1.IfAdminStatus;
     MATCHES FOR      EQUALITY;
     BEHAVIOUR
          ifAdminStatusBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ifAdminStatus with object
          id {ifEntry 7} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
```

```
          ENDPARSE!;;
REGISTERED AS { iimcAutoTrans 1 3 6 1 2 1 2 2 1 7};

ifDescr ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1}:displayString;
     BEHAVIOUR
          ifDescrBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ifDescr with object id
          {ifEntry 2} in RFC 1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS { iimcAutoTrans 1 3 6 1 2 1 2 2 1 2};

ifIndex    ATTRIBUTE
     WITH ATTRIBUTE SYNTAX  IIMCRFC1213ASN1.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. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS { iimcAutoTrans 1 3 6 1 2 1 2 2 1 1};

ifInDiscards ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          ifInDiscardsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ifInDiscards with
          object id {ifEntry 13} in RFC1213. See RFC
          1213 for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS { iimcAutoTrans 1 3 6 1 2 1 2 2 1 13};

ifInErrors ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          ifInErrorsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ifInErrors with object
          id {ifEntry 14} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
```

```
REGISTERED AS { iimcAutoTrans 1 3 6 1 2 1 2 2 1 14};

ifInNUcastPkts ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          ifInNUcastPktsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ifInNUcastPkts with
          object id {ifEntry 12} in RFC1213. See RFC
          1213 for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS { iimcAutoTrans 1 3 6 1 2 1 2 2 1 12};

ifInOctets ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          ifInOctetsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ifInOctets with object
          id {ifEntry 10} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS { iimcAutoTrans 1 3 6 1 2 1 2 2 1 10};

ifInUcastPkts ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          ifInUcastPktsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ifInUcastPkts with object
          id {ifEntry 11} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS { iimcAutoTrans 1 3 6 1 2 1 2 2 1 11};

ifInUnknownProtos ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          ifInUnknownProtosBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ifInUnknownProtos with
          object id {if Entry 15} in RFC1213. See RFC 1213
          for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS { iimcAutoTrans 1 3 6 1 2 1 2 2 1 15};
```

```
ifLastChange ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1}: timeTicks;
     BEHAVIOUR
          ifLastChangeBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ifLastChange with object
          id {ifEntry 9} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 2 2 1 9};

ifMtu ATTRIBUTE
     WITH ATTRIBUTE SYNTAX  IIMCRFC1213ASN1.Integer;
     MATCHES FOR      EQUALITY, ORDERING;
     BEHAVIOUR
          ifMtuBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ifMtu with object id
          {ifEntry 4} in RFC1213. See RFC 1213 for attribute
          semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 2 2 1 4};

ifNumber  ATTRIBUTE
     WITH ATTRIBUTE SYNTAX  IIMCRFC1213ASN1.Integer;
     MATCHES FOR      EQUALITY, ORDERING;
     BEHAVIOUR
          ifNumberBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ifNumber with object id
          {interfaces 1} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 2 1};

ifOperStatus ATTRIBUTE
     WITH ATTRIBUTE SYNTAX
          IIMCRFC1213ASN1.IfOperStatus;
     MATCHES FOR      EQUALITY;
     BEHAVIOUR
          ifOperStatusBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ifOperStatus with object
          id {ifEntry 8} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
```

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

ifOutDiscards ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          ifOutDiscardsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ifOutDiscards with object
          id {ifEntry 19} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 2 2 1 19};

ifOutErrors ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          ifOutErrorsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ifOutErrors with object
          id {ifEntry 20} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 2 2 1 20};

ifOutNUcastPkts ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          ifOutNUcastPktsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ifOutNUcastPkts with
          object id {ifEntry 18} in RFC1213. See RFC 1213
          for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 2 2 1 18};

ifOutOctets ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          ifOutOctetsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ifOutOctets with object
           id {ifEntry 16} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 2 2 1 16};
```

```
ifOutQLen ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1}: gauge32;
     BEHAVIOUR
          ifOutQLenBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ifOutQLen with object id
          {ifEntry 21} in RFC1213. See RFC 1213 for attribute
          semantics.!!
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 2 2 1 21};

ifOutUcastPkts ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          ifOutUcastPktsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ifOutUcastPkts with
          object id {ifEntry 17} in RFC1213. See RFC 1213
          for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 2 2 1 17};

ifPhysAddress ATTRIBUTE
     DERIVED FROM  {iimcManagementDocMan 1}:physAddress;
     BEHAVIOUR
          ifPhysAddressBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ifPhysAddress with object
          id {ifEntry 6} in RFC 1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 2 2 1 6};

ifSpecific ATTRIBUTE
     WITH ATTRIBUTE SYNTAX
          IIMCRFC1213ASN1.ObjectIdentifier;
     MATCHES FOR      EQUALITY;
     BEHAVIOUR
          ifSpecificBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ifSpecific with object
          id {ifEntry 22} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 2 2 1 22};
```

```
ifSpeed ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1}:gauge32;
     BEHAVIOUR
          ifSpeedBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ifSpeed with object id
          {ifEntry 5} in RFC 1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 2 2 1 5};

ifType ATTRIBUTE
     WITH ATTRIBUTE SYNTAX  IIMCRFC1213ASN1.IfType;
     MATCHES FOR      EQUALITY;
     BEHAVIOUR
          ifTypeBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ifType with object id
          {ifEntry 3} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 2 2 1 3};

ipAdEntAddr ATTRIBUTE
     DERIVED FROM   {iimcManagementDocMan 1}:ipAddress;
     BEHAVIOUR
          ipAdEntAddrBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ipAdEntAddr with object
          id {ipAddrEntry 1} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 20 1 1};

ipAdEntBcastAddr ATTRIBUTE
     WITH ATTRIBUTE SYNTAX  IIMCRFC1213ASN1.Integer;
     MATCHES FOR      EQUALITY, ORDERING;
     BEHAVIOUR
          ipAdEntBcastAddrBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ipAdEntBcastAddr with
          object id {ipAddrEntry 4} in RFC1213. See RFC 1213
          for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 20 1 4};
```

```
ipAdEntIfIndex ATTRIBUTE
     WITH ATTRIBUTE SYNTAX  IIMCRFC1213ASN1.Integer;
     MATCHES FOR      EQUALITY, ORDERING;
     BEHAVIOUR
          ipAdEntIfIndexBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ipAdEntIfIndex with
          object id {ipAddrEntry 2} in RFC1213. See RFC
          1213 for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 20 1 2};

ipAdEntNetMask ATTRIBUTE
     DERIVED FROM   {iimcManagementDocMan 1}:ipAddress;
     BEHAVIOUR
          ipAdEntNetMaskBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ipAdEntNetMask with
          object id {ipAddrEntry 3} in RFC1213. See RFC
          1213 for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 20 1 3};

ipAdEntReasmMaxSize ATTRIBUTE
     WITH ATTRIBUTE SYNTAX  IIMCRFC1213ASN1.Integer64k;
     MATCHES FOR      EQUALITY, ORDERING;
     BEHAVIOUR
          ipAdEntReasmMaxSizeBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ipAdEntReasmMaxSize with
          object id {ipAddrEntry 5} in RFC1213. See RFC 1213
          for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 20 1 5};

ipDefaultTTL ATTRIBUTE
     WITH ATTRIBUTE SYNTAX IIMCRFC1213ASN1.Integer;
     MATCHES FOR      EQUALITY, ORDERING;
     BEHAVIOUR
          ipDefaultTTLBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ipDefaultTTL with object
          id {ip 2} in RFC1213. See RFC 1213 for attribute
          semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 2};
```

```
ipForwardAge ATTRIBUTE
     WITH ATTRIBUTE SYNTAX
          IIMCRFC1213ASN1.Integer;
     MATCHES FOR    EQUALITY, ORDERING;
     BEHAVIOUR
          ipForwardAgeBehaviour BEHAVIOUR
          DEFINED AS
               !BEGINPARSE
          REFERENCE
               !!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 {iimcAutoTrans 1 3 6 1 2 1 4 24 2  1 8};

ipForwardDest ATTRIBUTE
     DERIVED FROM
          {iimcManagementDocMan 1}: ipAddress;
     BEHAVIOUR
          ipForwardDestBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!The destination IP address of this
          route.   An entry  with  a value of 0.0.0.0 is
          considered a default route.

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

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

ipForwardIfIndex ATTRIBUTE
     WITH ATTRIBUTE SYNTAX
          IIMCRFC1213ASN1.Integer;
     MATCHES FOR    EQUALITY, ORDERING;
     BEHAVIOUR
          ipForwardIfIndexBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!The ifIndex value which identifies  the  local
          interface  through  which  the next hop of this
```

```
          route should be reached.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 24 2  1 5};

ipForwardInfo ATTRIBUTE
     WITH ATTRIBUTE SYNTAX
          IIMCRFC1213ASN1.ObjectIdentifier;
     MATCHES FOR    EQUALITY, ORDERING;
     BEHAVIOUR
          ipForwardInfoBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!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  identif-
          ier, and any implementation conforming to
          ASN.1 and the Basic Encoding Rules must  be
          able  to generate and recognize this value.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 24 2  1 9};

ipForwarding ATTRIBUTE
     WITH ATTRIBUTE SYNTAX  IIMCRFC1213ASN1.IpForwarding;
     MATCHES FOR      EQUALITY;
     BEHAVIOUR
          ipForwardingBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ipForwarding with object
          id {ip 1} in RFC 1213. See RFC 1213 for attribute
          semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 1};

ipForwardMask ATTRIBUTE
     DERIVED FROM
          {iimcManagementDocMan 1}: ipAddress;
     BEHAVIOUR
          ipForwardMaskBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!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  object to a value x must be
          rejected if the bitwise logical-AND of  x  with
          the  value of the corresponding instance of the
          ipForwardDest object is not equal to
          ipForwardDest.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 24 2  1 2};

ipForwardNextHop ATTRIBUTE
     DERIVED FROM
          {iimcManagementDocMan 1}: ipAddress;
     BEHAVIOUR
          ipForwardNextHopBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!On remote routes, the address of
          the next system en route; Otherwise, 0.0.0.0.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 24 2  1 4};

ipForwardNextHopAS ATTRIBUTE
     WITH ATTRIBUTE SYNTAX
          IIMCRFC1213ASN1.Integer;
     MATCHES FOR    EQUALITY, ORDERING;
     BEHAVIOUR
          ipForwardNextHopASBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!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 {iimcAutoTrans 1 3 6 1 2 1 4 24 2  1 10};

ipForwardNumber ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1}: gauge32;
     BEHAVIOUR
          ipForwardNumberBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!The number of current ipForwardTable entries
          that are not invalid.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 24 1};

ipForwardMetric1 ATTRIBUTE
     WITH ATTRIBUTE SYNTAX
```

```
          IIMCRFC1213ASN1.Integer;
     MATCHES FOR    EQUALITY, ORDERING;
     BEHAVIOUR
          ipForwardMetric1Behaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!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 {iimcAutoTrans 1 3 6 1 2 1 4 24 2  1 11};

ipForwardMetric2 ATTRIBUTE
     WITH ATTRIBUTE SYNTAX
          IIMCRFC1213ASN1.Integer;
     MATCHES FOR    EQUALITY, ORDERING;
     BEHAVIOUR
          ipForwardMetric2Behaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!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 {iimcAutoTrans 1 3 6 1 2 1 4 24 2  1 12};

ipForwardMetric3 ATTRIBUTE
     WITH ATTRIBUTE SYNTAX
          IIMCRFC1213ASN1.Integer;
     MATCHES FOR    EQUALITY, ORDERING;
     BEHAVIOUR
          ipForwardMetric3Behaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!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 {iimcAutoTrans 1 3 6 1 2 1 4 24 2  1 13};

ipForwardMetric4 ATTRIBUTE
     WITH ATTRIBUTE SYNTAX
          IIMCRFC1213ASN1.Integer;
     MATCHES FOR    EQUALITY, ORDERING;
     BEHAVIOUR
```

```
          ipForwardMetric4Behaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!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 {iimcAutoTrans 1 3 6 1 2 1 4 24 2  1 14};

ipForwardMetric5 ATTRIBUTE
     WITH ATTRIBUTE SYNTAX
          IIMCRFC1213ASN1.Integer;
     MATCHES FOR    EQUALITY, ORDERING;
     BEHAVIOUR
          ipForwardMetric5Behaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!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 {iimcAutoTrans 1 3 6 1 2 1 4 24 2  1 15};

ipForwardPolicy ATTRIBUTE
     WITH ATTRIBUTE SYNTAX
          IIMCRFC1213ASN1.Integer;
     MATCHES FOR    EQUALITY, ORDERING;
     BEHAVIOUR
          ipForwardPolicyBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!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.

        +-----+-----+-----+-----+-----+-----+-----+-----+
        |                 |                 |           |
        |   PRECEDENCE    | TYPE OF SERVICE |     0     |
        |                 |                 |           |
```

```
       +-----+-----+-----+-----+-----+-----+-----+-----+

              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  ei-
        ther define a set of values which are valid for
        this  object  or  must  implement  an  integer-
        instanced  policy table for which this object's
        value acts as an index.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 24 2  1 3};

ipForwardProto ATTRIBUTE
     WITH ATTRIBUTE SYNTAX
          IIMCRFC1213ASN1.IpForwardProto;
     MATCHES FOR    EQUALITY, ORDERING;
     BEHAVIOUR
          ipForwardProtoBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!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 {iimcAutoTrans 1 3 6 1 2 1 4 24 2  1 7};

ipForwardType ATTRIBUTE
     WITH ATTRIBUTE SYNTAX
          IIMCRFC1213ASN1.IpForwardType;
     MATCHES FOR    EQUALITY, ORDERING;
     BEHAVIOUR
          ipForwardTypeBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!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 object to the value invalid(2) has
          the  effect  of  invalidating the corresponding
```

```
          entry in the ipForwardTable object.   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 object.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 24 2  1 6};

ipForwDatagrams ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          ipForwDatagramsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ipForwDatagrams with
          object id {ip 6} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 6};


ipFragCreates ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          ipFragCreatesBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ipFragCreates with object
          id {ip 19} in RFC1213. See RFC 1213 for attribute
          semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 19};

ipFragFails ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          ipFragFailsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ipFragFails with object id
          {ip 18} in RFC1213. See RFC 1213 for attribute
          semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 18};
```

```
ipFragOKs ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          ipFragOKsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ipFragOKs with object id
          {ip 17} in RFC1213. See RFC 1213 for attribute
          semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 17};

ipInAddrErrors ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          ipInAddrErrorsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ipInAddrErrors with
          object id {ip 5} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 5};

ipInDelivers ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          ipInDeliversBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ipInDelivers with object
          id {ip 9} in RFC1213. See RFC 1213 for attribute
          semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 9};

ipInDiscards ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          ipInDiscardsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ipInDiscards with object
          id {ip 8} in RFC1213. See RFC 1213 for attribute
          semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 8};

ipInHdrErrors ATTRIBUTE
```

```
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          ipInHdrErrorsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ipInHdrErrors with object
          id {ip 4} in RFC1213. See RFC 1213 for attribute
          semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 4};

ipInReceives ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          ipInReceivesBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ipInReceives with object
          id {ip 3} in RFC1213. See RFC 1213 for attribute
          semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 3};

ipInUnknownProtos ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          ipInUnknownProtosBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ipInUnknownProtos with
          object id {ip 7} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 7};

ipNetToMediaIfIndex ATTRIBUTE
     WITH ATTRIBUTE SYNTAX    IIMCRFC1213ASN1.Integer;
     MATCHES FOR      EQUALITY, ORDERING;
     BEHAVIOUR
          ipNetToMediaIfIndexBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ipNetToMediaIfIndex with
          object id {ipNetToMediaEntry 1} in RFC1213. See
          RFC 1213 for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 22 1 1};

ipNetToMediaNetAddress ATTRIBUTE
     DERIVED FROM   {iimcManagementDocMan 1}:ipAddress;
```

```
     BEHAVIOUR
          ipNetToMediaNetAddressBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ipNetToMediaNetAddress
          with object id {ipNetToMediaEntry 3} in RFC1213.
          See RFC 1213 for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 22 1 3};

ipNetToMediaPhysAddress ATTRIBUTE
     DERIVED FROM  {iimcManagementDocMan 1}:physAddress;
     BEHAVIOUR
          ipNetToMediaPhysAddressBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ipNetToMediaPhysAddress
          with object id {ipNetToMediaEntry 2} in RFC1213.
          See RFC 1213 for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 22 1 2};

ipNetToMediaType ATTRIBUTE
     WITH ATTRIBUTE SYNTAX
          IIMCRFC1213ASN1.IpNetToMediaType;
     MATCHES FOR      EQUALITY;
     BEHAVIOUR
          ipNetToMediaTypeBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ipNetToMediaType with
          object id {ipNetToMediaEntry 4} in RFC1213. See
          RFC 1213 for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 22 1 4};

ipOutDiscards ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          ipOutDiscardsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ipOutDiscards with object
          id ip 11} in RFC1213. See RFC 1213 for attribute
          semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 11};

ipOutNoRoutes ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
```

```
     BEHAVIOUR
          ipOutNoRoutesBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ipOutNoRoutes with object
          id {ip 12} in RFC1213. See RFC 1213 for attribute
          semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 12};

ipOutRequests ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          ipOutRequestsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ipOutRequests with object
          id {ip 10}. See RFC 1213 for semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 10};

ipReasmFails ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          ipReasmFailsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ipReasmFails with objects
          id {ip 16} in RFC1213. See RFC 1213 for attribute
          semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 16};

ipReasmOKs ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          ipReasmOKsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ipReasmOKs with object id
          {ip 15} in RFC1213. See RFC 1213 for attribute
          semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 15};

ipReasmReqds ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          ipReasmReqdsBehaviour BEHAVIOUR
          DEFINED AS
```

```
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ipReasmReqds with object
          id {ip 4} in RFC1213. See RFC 1213 for attribute
          semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 4};

ipReasmTimeout ATTRIBUTE
     WITH ATTRIBUTE SYNTAX   IIMCRFC1213ASN1.Integer;
     MATCHES FOR      EQUALITY, ORDERING;
     BEHAVIOUR
          ipReasmTimeoutBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ipReasmTimeout with object
          id {ip 13} in RFC1213. See RFC 1213 for attribute
          semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 13};

ipRouteAge ATTRIBUTE
     WITH ATTRIBUTE SYNTAX  IIMCRFC1213ASN1.Integer;
     MATCHES FOR      EQUALITY, ORDERING;
     BEHAVIOUR
          ipRouteAgeBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ipRouteAge with object
          id {ipRouteEntry 10} in RFC1213. See RFC 1213
          for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 21 1 10};

ipRouteDest ATTRIBUTE
     DERIVED FROM   {iimcManagementDocMan 1}:ipAddress;
     BEHAVIOUR
          ipRouteDestBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ipRouteDest with object
          id {ipRouteEntry 1} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 21 1 1};

ipRouteIfIndex ATTRIBUTE
     WITH ATTRIBUTE SYNTAX   IIMCRFC1213ASN1.Integer;
     MATCHES FOR      EQUALITY, ORDERING;
     BEHAVIOUR
          ipRouteIfIndexBehaviour BEHAVIOUR
```

```
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ipRouteIfIndex with
          object id {ipRouteEntry 2} in RFC1213. See RFC
          1213 for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 21 1 2};

ipRouteInfo ATTRIBUTE
     WITH ATTRIBUTE SYNTAX
          IIMCRFC1213ASN1.ObjectIdentifier;
     MATCHES FOR      EQUALITY;
     BEHAVIOUR
          ipRouteInfoBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ipRouteInfo with object
          id {ipRouteEntry 13} in RFC1213. See RFC 1213
          for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 21 1 13};

ipRouteMask ATTRIBUTE
     DERIVED FROM   {iimcManagementDocMan 1}:ipAddress;
     BEHAVIOUR
          ipRouteMaskBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ipRouteMask with object
          id {ipRouteEntry 11} in RFC1213. See RFC 1213
          for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 21 1 11};

ipRouteMetric1 ATTRIBUTE
     WITH ATTRIBUTE SYNTAX   IIMCRFC1213ASN1.Integer;
     MATCHES FOR      EQUALITY, ORDERING;
     BEHAVIOUR
          ipRouteMetric1Behaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ipRouteMetric1 with
          object id {ipRouteEntry 3} in RFC1213. See RFC
          1213 for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 21 1 3};

ipRouteMetric2 ATTRIBUTE
     WITH ATTRIBUTE SYNTAX   IIMCRFC1213ASN1.Integer;
     MATCHES FOR      EQUALITY, ORDERING;
```

```
     BEHAVIOUR
          ipRouteMetric2Behaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ipRouteMetric with
          object id {ipRouteEntry 4} in RFC1213. See RFC
          1213 for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 21 1 4};

ipRouteMetric3 ATTRIBUTE
     WITH ATTRIBUTE SYNTAX   IIMCRFC1213ASN1.Integer;
     MATCHES FOR      EQUALITY, ORDERING;
     BEHAVIOUR
          ipRouteMetric3Behaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ipRouteMetric3 with
          object id {ipRouteEntry 5} in RFC1213. See RFC
          1213 for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 21 1 5};

ipRouteMetric4 ATTRIBUTE
     WITH ATTRIBUTE SYNTAX   IIMCRFC1213ASN1.Integer;
     MATCHES FOR      EQUALITY, ORDERING;
     BEHAVIOUR
          ipRouteMetric4Behaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ipRouteMetric4 with
          object id {ipRouteEntry 6} in RFC1213. See RFC
          1213 for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 21 1 6};

ipRouteMetric5 ATTRIBUTE
     WITH ATTRIBUTE SYNTAX   IIMCRFC1213ASN1.Integer;
     MATCHES FOR      EQUALITY, ORDERING;
     BEHAVIOUR
          ipRouteMetric5Behaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ipRouteMetric5 with
          object id {ipRouteEntry 12} in RFC1213. See RFC
          1213 for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 21 1 12};

ipRouteNextHop ATTRIBUTE
```

```
     DERIVED FROM   {iimcManagementDocMan 1}:ipAddress;
     BEHAVIOUR
          ipRouteNextHopBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ipRouteNextHop with
          object id {ipRouteEntry 7} in RFC1213. See RFC
          1213 for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 21 1 7};

ipRouteProto ATTRIBUTE
     WITH ATTRIBUTE SYNTAX
          IIMCRFC1213ASN1.IpRouteProto;
     MATCHES FOR      EQUALITY;
     BEHAVIOUR
          ipRouteProtoBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ipRouteProto with object
          id {ipRouteEntry 9} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 21 1 9};

ipRouteType ATTRIBUTE
     WITH ATTRIBUTE SYNTAX
          IIMCRFC1213ASN1.IpRouteType;
     MATCHES FOR      EQUALITY;
     BEHAVIOUR
          ipRouteTypeBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ipRouteType with object
          id {ipRouteEntry 8} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 21 1 8};

ipRoutingDiscards ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          ipRoutingDiscardsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to ipRoutingDiscards with
          object id {ip 23} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 4 23};
```

```
snmpEnableAuthTraps   ATTRIBUTE
     WITH ATTRIBUTE SYNTAX
          IIMCRFC1213ASN1.SnmpEnableAuthTraps;
     MATCHES FOR      EQUALITY;
     BEHAVIOUR
          snmpEnableAuthenTrapsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to snmpEnableAuthenTraps
          with object id {snmp 30} in RFC1213. See RFC 1213
          for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 11 30};

snmpInASNParseErrs      ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          snmpInASNParseErrsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to
          snmpInASNParseErrs with object id {snmp 6} in
          RFC1213. See RFC 1213 for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 11 6};

snmpInBadCommunityNames ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          snmpInBadCommunityNamesBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to
          snmpInBadCommunityNames with object id {snmp
          4} in RFC1213. See RFC 1213 for attribute
          semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 11 4};

snmpInBadCommunityUses  ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          snmpInBadCommunityUsesBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to snmpInBadCommunityUses
          with object id {snmp 5} in RFC1213. See RFC 1213
          for attribute semantics.!!;
          ENDPARSE!;;
```

```
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 11 5};

snmpInBadValues ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          snmpInBadValuesBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to the snmpInBadValues with
          object id {snmp 10} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 11 10};

snmpInBadVersions       ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          snmpInBadVersionsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to the snmpInBadVersions
          with object id {snmp 3} in RFC1213. See RFC 1213
          for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 11 3};

snmpInGenErrs   ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          snmpInGenErrsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to the snmpInGenErrs with
          object id {snmp 12} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 11 12};

snmpInGetNexts  ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          snmpInGetNextsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to the snmpInGetNexts with
          object id {snmp 16} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 11 16};
```

```
snmpInGetRequests       ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          snmpInGetRequestsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to the snmpInGetRequests
          with object id {snmp 15} in RFC1213. See RFC 1213
          for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 11 15};

snmpInGetResponses      ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          snmpInGetResponsesBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to the snmpInGetResponses
          with object id {snmp 18} in RFC1213. See RFC 1213
          for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 11 18};

snmpInNoSuchNames       ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          snmpInNoSuchNamesBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to the snmpInNoSuchNames
          with object id {snmp 9} in RFC1213. See RFC 1213
          for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 11 9};

snmpInPkts      ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          snmpInPktsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to snmpInPkts with object id
          {snmp 1} in RFC1213. See RFC 1213 for attribute
          semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 11 1};

snmpInReadOnlys ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
```

```
     BEHAVIOUR
          snmpInReadOnlysBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to the snmpInReadOnlys with
          object id {snmp 11} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 11 11};

snmpInSetRequests       ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          snmpInSetRequestsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to snmpInSetRequests with
          object id {snmp 17} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 11 17};

snmpInTooBigs   ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          snmpInTooBigsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to snmpInTooBigs with object
          id {snmp 8} in RFC1213. See RFC 1213 for attribute
          semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 11 8};

snmpInTotalReqVars      ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          snmpInTotalReqVarsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to snmpInTotalReqVars with
          object id {snmp 13} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 11 13};

snmpInTotalSetVars      ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          snmpInTotalSetVarsBehaviour BEHAVIOUR
```

```
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to snmpInTotalSetVars with
          object id {snmp 14} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 11 14};

snmpInTraps     ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          snmpInTrapsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to snmpInTraps with object
          id {snmp 19}. See RFC 1213 for semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 11 19};

snmpOutBadValues        ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          snmpOutBadValuesBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to snmpOutBadValues with
          object id {snmp 22} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 11 22};

snmpOutGenErrs  ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          snmpOutGenErrsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to snmpOutGenErrs with
          object id {snmp 24} in RFC1213. See RFC 1213
          for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 11 24};

snmpOutGetNexts ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          snmpOutGetNextsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
```

```
          !!This attribute maps to snmpOutGetNexts with
          object id {snmp 26} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 11 26};

snmpOutGetRequests      ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          snmpOutGetRequestsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to snmpOutGetRequests with
          object id {snmp 25} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 11 25};

snmpOutGetResponses     ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          snmpOutGetResponsesBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to snmpOutGetResponses with
          object id {snmp 28} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 11 28};

snmpOutNoSuchNames      ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          snmpOutNoSuchNamesBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to snmpOutNoSuchNames with
          object id {snmp 21} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 11 21};

snmpOutPkts     ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          snmpOutPktsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to snmpOutPkts with object
          is {snmp 2} in RFC1213. See RFC 1213 for
```

```
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 11 2};

snmpOutSetRequests      ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          snmpOutSetRequestsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attributes maps to snmpOutSetRequests with
          object id {snmp 27} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 11 27};

snmpOutTooBigs  ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          snmpOutTooBigsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to snmpOutTooBigs with
          object id {snmp 20} in RFC1213. See RFC 1213
          for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 11 20};

snmpOutTraps    ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          snmpOutTrapsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to snmpOutTraps with object
          id {snmp 29} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 11 29};

sysContact ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :displayString;
     BEHAVIOUR
          sysContactBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to sysContact with object id
          {system 4} in RFC1213. See RFC 1213 for attribute
          semantics.!!;
          ENDPARSE!;;
```

```
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 1 4};

sysDescr ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :displayString;
     BEHAVIOUR
          sysDescrBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to sysDescr with object id
          {system 1} in RFC1213. See RFC 1213 for attribute
          semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 1 1};

sysLocation     ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :displayString;
     BEHAVIOUR
          sysLocationBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to sysLocation with object
          id {system 6} in RFC 1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 1 6};

sysName         ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :displayString;
     BEHAVIOUR
          sysNameBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to sysName with object id
          {system 5} in RFC1213. See RFC 1213 for attribute
          semantics. Usually the node's domain name.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 1 5};

sysObjectId     ATTRIBUTE
     WITH ATTRIBUTE SYNTAX
          IIMCRFC1213ASN1.ObjectIdentifier;
     MATCHES FOR                EQUALITY;
     BEHAVIOUR
          sysObjectIdBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to sysObjectId with object
          id {system 2} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
```

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

sysServices     ATTRIBUTE
     WITH ATTRIBUTE SYNTAX IIMCRFC1213ASN1.Integer;
     MATCHES FOR  EQUALITY, ORDERING;
     BEHAVIOUR
          sysServicesBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to sysServices with object
          id {system 7}. See RFC 1213 for semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 1 7};

sysUpTime       ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1}: timeTicks;
     BEHAVIOUR
          sysUpTimeBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to sysUpTime with object id
          {system 3} in RFC1213. See RFC 1213 for attribute
          semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 1 3};

tcpActiveOpens ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          tcpActiveOpensBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to tcpActiveOpens with
          object id {tcp 5} in RFC1213. See RFC 1213
          for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 6 5};

tcpAttemptFails  ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          tcpAttemptFailsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to tcpAttemptFails with
          object id {tcp 7} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 6 7};
```

```
tcpConnLocalAddress ATTRIBUTE
     DERIVED FROM   {iimcManagementDocMan 1}:ipAddress;
     BEHAVIOUR
          tcpConnLocalAddressBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to tcpConnLocalAddress with
          object id {tcpConnEntry 2} in RFC1213. See RFC
          1213 for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 6 13 2};

tcpConnLocalPort ATTRIBUTE
    WITH ATTRIBUTE SYNTAX
          IIMCRFC1213ASN1.Integer64k;
    MATCHES FOR      EQUALITY, ORDERING;
    BEHAVIOUR
          tcpConnLocalPortBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to tcpConnLocalPort with
          object id {tcpConnEntry 3} in RFC1213. See RFC
          1213 for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 6 13 3};

tcpConnRemAddress ATTRIBUTE
    DERIVED FROM   {iimcManagementDocMan 1}:ipAddress;
    BEHAVIOUR
          tcpConnRemAddressBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to tcpConnRemAddress with
          object id {tcpConnEntry 4} in RFC1213. See RFC
          1213 for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 6 13 4};

tcpConnRemPort  ATTRIBUTE
     WITH ATTRIBUTE SYNTAX
          IIMCRFC1213ASN1.Integer64k;
     MATCHES FOR      EQUALITY, ORDERING;
     BEHAVIOUR
          tcpConnRemPortBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to tcpConnRemPort with
          object id {tcpConnEntry 5} in RFC1213. See RFC
          1213 for attribute semantics.!!;
          ENDPARSE!;;
```

```
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 6 13 5};

tcpConnState ATTRIBUTE
     WITH ATTRIBUTE SYNTAX
          IIMCRFC1213ASN1.TcpConnState;
     MATCHES FOR      EQUALITY;
     BEHAVIOUR
          tcpConnStateBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to tcpConnState with object
          id {tcpConnEntry 1} in RFC1213. See RFC 1213 for
          attribute semantics.!!
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 6 13 1};

tcpCurrEstab ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1}: gauge32;
     BEHAVIOUR
          tcpCurrEstabBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to tcpCurrEstab with object
          id {tcp 9} in RFC1213. See RFC 1213 for attribute
          semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 6 9};

tcpEstabResets ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          tcpEstabResetsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to tcpEstabResets with
          object id {tcp 8} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 6 8};

tcpInErrs ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          tcpInErrsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to tcpInErrs with object id
          {tcp 14} in RFC1213. See RFC 1213 for attribute
          semantics.!!;
          ENDPARSE!;;
```

```
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 6 14};

tcpInSegs ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          tcpInSegsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to tcpInSegs with object id
          {tcp 10} in RFC1213. See RFC 1213 for attribute
          semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 6 10};

tcpMaxConn ATTRIBUTE
     WITH ATTRIBUTE SYNTAX  IIMCRFC1213ASN1.Integer;
     MATCHES FOR      EQUALITY, ORDERING;
     BEHAVIOUR
          tcpMaxConnBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to tcpMaxConn with object id
          {tcp 4} in RFC1213. See RFC 1213 for attribute
          semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 6 4};

tcpOutRsts ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          tcpOutRstsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to tcpOutRsts with object id
          {tcp 15} in RFC1213. See RFC 1213 for attribute
          semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 6 15};

tcpOutSegs ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          tcpOutSegsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to tcpOutSegs with object id
          {tcp 11} in RFC1213. See RFC 1213 for attribute
          semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 6 11};
```

```
tcpPassiveOpens  ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          tcpPassiveOpensBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to tcpPassiveOpens with
          object id {tcp 6} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 6 6};

tcpRetransSegs ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          tcpRetransSegsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to tcpRetransSegs with
          object id {tcp 12} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 6 12};

tcpRtoAlgorithm ATTRIBUTE
     WITH ATTRIBUTE SYNTAX
          IIMCRFC1213ASN1.TcpRtoAlgorithm;
     MATCHES FOR      EQUALITY;
     BEHAVIOUR
          tcpRtoAlgorithmBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to tcpRtoAlgorithm with
          object id {tcp 1} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 6 1};

tcpRtoMax  ATTRIBUTE
     WITH ATTRIBUTE SYNTAX  IIMCRFC1213ASN1.Integer;
     MATCHES FOR      EQUALITY, ORDERING;
     BEHAVIOUR
          tcpRtoMaxBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to tcpRtoMax with object id
          {tcp 3} in RFC1213. See RFC 1213 for attribute
          semantics.!!;
          ENDPARSE!;;
```

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

tcpRtoMin ATTRIBUTE
     WITH ATTRIBUTE SYNTAX  IIMCRFC1213ASN1.Integer;
     MATCHES FOR      EQUALITY, ORDERING;
     BEHAVIOUR
          tcpRtoMinBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to tcpRtoMin with object id
          {tcp 2} in RFC1213. See RFC 1213 for attribute
          semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 6 2};

udpInDatagrams ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          udpInDatagramsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to udpInDatagrams with
          object id {udp 1} in RFC1213. See RFC 1213
          for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 7 1};

udpInErrors ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          udpInErrorsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to udpInErrors with object
          id {udp 3} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 7 3};

udpLocalAddress ATTRIBUTE
     DERIVED FROM   {iimcManagementDocMan 1}:ipAddress;
     BEHAVIOUR
          udpLocalAddressBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to udpLocalAddress with
          object id {udpEntry 1} in RFC1213. See RFC 1213
          for attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 7 5 1 1};
```

```
udpLocalPort ATTRIBUTE
     WITH ATTRIBUTE SYNTAX
          IIMCRFC1213ASN1.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. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 7 5 1 2};

udpNoPorts ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          udpNoPortsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to udpNoPorts with object id
          {udp 2} in RFC1213. See RFC 1213 for attribute
          semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 1 3 6 1 2 1 7 2};

udpOutDatagrams ATTRIBUTE
     DERIVED FROM {iimcManagementDocMan 1} :counter32;
     BEHAVIOUR
          udpOutDatagramsBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          REFERENCE
          !!This attribute maps to udpOutDatagrams with
          object id {udp 4} in RFC1213. See RFC 1213 for
          attribute semantics.!!;
          ENDPARSE!;;
REGISTERED AS {iimcAutoTrans 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
               {iimcManagementDocMan 1}: internetClassId;
```

```
     BEHAVIOUR
          at-systemNBBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          DESCRIPTION
          !!The <internet instanceId> portion of
          the internetClassId value shall be 0.!!;
          ENDPARSE!;;
REGISTERED AS {iimcManagementNB 1 3 6 1 2 1 3 };

atEntry-atTableNB  NAME BINDING
     SUBORDINATE OBJECT CLASS     atEntry
                                        AND SUBCLASSES ;
     NAMED BY SUPERIOR OBJECT CLASS  atTable
                                        AND SUBCLASSES;
     WITH ATTRIBUTE
               {iimcManagementDocMan 1}: internetClassId;
     BEHAVIOUR
          atEntry-atTableNBBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          INDEX atIfIndex
                atNetAddress;
          CREATEDELETEATT atPhysAddress;
          CREATEDELETEVALUE ''h;
          ENDPARSE!;;
     CREATE    WITH-AUTOMATIC-INSTANCE-NAMING,
               WITH-REFERENCE-OBJECT;
     DELETE    DELETES-CONTAINED-OBJECTS;
REGISTERED AS {iimcManagementNB 1 3 6 1 2 1 3 1 1};

atTable-atNB  NAME BINDING
     SUBORDINATE OBJECT CLASS     atTable
                                     AND SUBCLASSES;
     NAMED BY SUPERIOR OBJECT CLASS   at
                                     AND SUBCLASSES;
     WITH ATTRIBUTE
               {iimcManagementDocMan 1}: internetClassId;
     BEHAVIOUR
          atTable-atNBBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          DESCRIPTION
          !!The <internet instanceId> portion of
          the internetClassId value shall be 0.!!;
          ENDPARSE!;;
REGISTERED AS {iimcManagementNB 1 3 6 1 2 1 3 1};

egp-system  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
               {iimcManagementDocMan 1}: internetClassId;
     BEHAVIOUR
          egp-systemNBBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          DESCRIPTION
          !!The <internet instanceId> portion of
          the internetClassId value shall be 0.!!;
          ENDPARSE!;;
REGISTERED AS {iimcManagementNB 1 3 6 1 2 1 8 };

egpNeighEntry-egpNeighTableNB  NAME BINDING
     SUBORDINATE OBJECT CLASS egpNeighEntry
                                   AND SUBCLASSES;
     NAMED BY SUPERIOR OBJECT CLASS
                              egpNeighTable
                                   AND SUBCLASSES;
     WITH ATTRIBUTE
               {iimcManagementDocMan 1}: internetClassId;
     BEHAVIOUR
          egpNeighEntry-egpNeighTableNBBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          INDEX egpNeighAddr;
          ENDPARSE!;;
REGISTERED AS {iimcManagementNB 1 3 6 1 2 1 8 5 1};

egpNeighTable-egpNB  NAME BINDING
     SUBORDINATE OBJECT CLASS     egpNeighTable
                                   AND SUBCLASSES;
     NAMED BY SUPERIOR OBJECT CLASS      egp
                              AND SUBCLASSES;
     WITH ATTRIBUTE
               {iimcManagementDocMan 1}: internetClassId;
     BEHAVIOUR
          egpNeighTable-egpNBBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          DESCRIPTION
          !!The <internet instanceId> portion of
          the internetClassId value shall be 0.!!;
          ENDPARSE!;;
REGISTERED AS {iimcManagementNB 1 3 6 1 2 1 8 5};

icmp-system  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
               {iimcManagementDocMan 1}: internetClassId;
     BEHAVIOUR
```

```
          icmp-systemNBBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          DESCRIPTION
          !!The <internet instanceId> portion of
          the internetClassId value shall be 0.!!;
          ENDPARSE!;;
REGISTERED AS {iimcManagementNB 1 3 6 1 2 1 5 };

ifEntry-ifTableNB  NAME BINDING
     SUBORDINATE OBJECT CLASS     ifEntry
                                   AND SUBCLASSES;
     NAMED BY SUPERIOR OBJECT CLASS   ifTable
                                   AND SUBCLASSES;
     WITH ATTRIBUTE
               {iimcManagementDocMan 1}: internetClassId;
     BEHAVIOUR
          ifEntry-ifTableNBBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          INDEX ifIndex;
          ENDPARSE!;;
REGISTERED AS {iimcManagementNB 1 3 6 1 2 1 2 2 1};

ifTable-interfacesNB  NAME BINDING
     SUBORDINATE OBJECT CLASS     ifTable
                                   AND SUBCLASSES;
     NAMED BY SUPERIOR OBJECT CLASS  interfaces
                                   AND SUBCLASSES;
     WITH ATTRIBUTE
               {iimcManagementDocMan 1}: internetClassId;
     BEHAVIOUR
          ifTable-interfacesNBBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          DESCRIPTION
          !!The <internet instanceId> portion of
          the internetClassId value shall be 0.!!;
          ENDPARSE!;;
REGISTERED AS {iimcManagementNB 1 3 6 1 2 1 2 2};

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
          {iimcManagementDocMan 1}: internetClassId;
     BEHAVIOUR
          interfaces-systemNBBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          DESCRIPTION
```

```
          !!The <internet instanceId> portion of
          the internetClassId value shall be 0.!!;
          ENDPARSE!;;
REGISTERED AS {iimcManagementNB 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
               {iimcManagementDocMan 1}: internetClassId;
     BEHAVIOUR
          internetSystem-systemNBBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          DESCRIPTION
          !!The <internet instanceId> portion of
          the internetClassId value shall be 0.!!;
          ENDPARSE!;;
REGISTERED AS {iimcManagementNB 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
               {iimcManagementDocMan 1}: internetClassId;
     BEHAVIOUR
          ip-systemNBBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          DESCRIPTION
          !!The <internet instanceId> portion of
          the internetClassId value shall be t0.!!;
          ENDPARSE!;;
REGISTERED AS {iimcManagementNB 1 3 6 1 2 1 4};

ipAddrEntry-ipAddrTableNB  NAME BINDING
     SUBORDINATE OBJECT CLASS     ipAddrEntry
                                   AND SUBCLASSES;
     NAMED BY SUPERIOR OBJECT CLASS  ipAddrTable
                                   AND SUBCLASSES;
     WITH ATTRIBUTE
               {iimcManagementDocMan 1}:internetClassId;
     BEHAVIOUR
          ipAddrEntry-ipAddrTableNBBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          INDEX ipAdEntAddr;
          ENDPARSE!;;
REGISTERED AS {iimcManagementNB 1 3 6 1 2 1 4 20 1};
```

```
ipAddrTable-ipNB  NAME BINDING
     SUBORDINATE OBJECT CLASS     ipAddrTable
                                   AND SUBCLASSES;
     NAMED BY SUPERIOR OBJECT CLASS   ip
                                   AND SUBCLASSES;
     WITH ATTRIBUTE
               {iimcManagementDocMan 1}: internetClassId;
     BEHAVIOUR
          ipAddrTable-ipNBBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          DESCRIPTION
          !!The <internet instanceId> portion of
          the internetClassId value shall be 0.!!;
          ENDPARSE!;;
REGISTERED AS {iimcManagementNB 1 3 6 1 2 1 4 20};

ipForwardEntry-ipForwardTableNB  NAME BINDING
     SUBORDINATE OBJECT CLASS     ipForwardEntry
                                   AND SUBCLASSES;
     NAMED BY SUPERIOR OBJECT CLASS
                              ipForwardTable
                                   AND SUBCLASSES;
     WITH ATTRIBUTE
               {iimcManagementDocMan 1}:internetClassId;
     BEHAVIOUR
          ipForwardEntry-ipForwardTableNBBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          INDEX   ipForwardDest,
                  ipForwardProto,
                  ipForwardPolicy,
                  ipForwardNextHop;
          CREATEDELETEATT ipForwardType;
          CREATEDELETEVALUE 2;
          ENDPARSE!;;
     CREATE    WITH-AUTOMATIC-INSTANCE-NAMING,
               WITH-REFERENCE-OBJECT;
     DELETE    DELETES-CONTAINED-OBJECTS;
REGISTERED AS {iimcManagementNB 1 3 6 1 2 1 4 24 2  1};

ipForwardTable-ipNB  NAME BINDING
     SUBORDINATE OBJECT CLASS     ipForwardTable
                                   AND SUBCLASSES;
     NAMED BY SUPERIOR OBJECT CLASS   ip
                                   AND SUBCLASSES;
     WITH ATTRIBUTE
                    {iimcManagementDocMan 1}:internetClassId;
     BEHAVIOUR
          ipForwardTable-ipNBBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          DESCRIPTION
```

```
          !!The <internet instanceId> portion of
          the internetClassId value shall be 0.!!;
          ENDPARSE!;;
REGISTERED AS {iimcManagementNB 1 3 6 1 2 1 4 24 2 };

ipNetToMediaEntry-ipNetToMediaTableNB  NAME BINDING
     SUBORDINATE OBJECT CLASS     ipNetToMediaEntry
                                   AND SUBCLASSES;
     NAMED BY SUPERIOR OBJECT CLASS
                         ipNetToMediaTable
                                   AND SUBCLASSES;
     WITH ATTRIBUTE
               {iimcManagementDocMan 1}: internetClassId;
     BEHAVIOUR
          ipNetToMediaEntry-ipNetToMediaTableNBBehaviour
          BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          INDEX ipNetToMediaIfIndex,
                ipNetToMediaNetAddress;
          CREATEDELETEATT ipNetToMediaType;
          CREATEDELETEVALUE 2;
          ENDPARSE!;;
     CREATE    WITH-AUTOMATIC-INSTANCE-NAMING,
               WITH-REFERENCE-OBJECT;
     DELETE    DELETES-CONTAINED-OBJECTS;
REGISTERED AS {iimcManagementNB 1 3 6 1 2 1 4 22 1};

ipNetToMediaTable-ipNB  NAME BINDING
     SUBORDINATE OBJECT CLASS     ipNetToMediaTable
                                   AND SUBCLASSES;
     NAMED BY SUPERIOR OBJECT CLASS  ip
                                   AND SUBCLASSES;
     WITH ATTRIBUTE
               {iimcManagementDocMan 1}: internetClassId;
     BEHAVIOUR
          ipNetToMediaTable-ipNBBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          DESCRIPTION
          !!The <internet instanceId> portion of
          the internetClassId value shall be 0.!!;
          ENDPARSE!;;
REGISTERED AS {iimcManagementNB 1 3 6 1 2 1 4 22};

ipRouteEntry-ipRouteTableNB  NAME BINDING
     SUBORDINATE OBJECT CLASS     ipRouteEntry
                                   AND SUBCLASSES;
     NAMED BY SUPERIOR OBJECT CLASS  ipRouteTable
                                   AND SUBCLASSES;
     WITH ATTRIBUTE
               {iimcManagementDocMan 1}: internetClassId;
     BEHAVIOUR
          ipRouteEntry-ipRouteTableNBBehaviour BEHAVIOUR
```

```
          DEFINED AS
          !BEGINPARSE
          INDEX ipRouteDest;
          CREATEDELETEATT ipRouteType;
          CREATEDELETEVALUE 2;
          ENDPARSE!;;
     CREATE    WITH-AUTOMATIC-INSTANCE-NAMING,
               WITH-REFERENCE-OBJECT;
     DELETE    DELETES-CONTAINED-OBJECTS;
REGISTERED AS {iimcManagementNB 1 3 6 1 2 1 4 21 1};

ipRouteTable-ipNB  NAME BINDING
     SUBORDINATE OBJECT CLASS     ipRouteTable
                                   AND SUBCLASSES;
     NAMED BY SUPERIOR OBJECT CLASS   ip
                                   AND SUBCLASSES;
     WITH ATTRIBUTE
               {iimcManagementDocMan 1}: internetClassId;
     BEHAVIOUR
          ipRouteTable-ipNBBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          DESCRIPTION
          !!The <internet instanceId> portion of
          the internetClassId value shall be 0.!!;
          ENDPARSE!;;
REGISTERED AS {iimcManagementNB 1 3 6 1 2 1 4 21};

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
               {iimcManagementDocMan 1}: internetClassId;
     BEHAVIOUR
          snmp-systemNBBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          DESCRIPTION
          !!The <internet instanceId> portion of
          the internetClassId value shall be 0.!!;
          ENDPARSE!;;
REGISTERED AS {iimcManagementNB 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
               {iimcManagementDocMan 1}: internetClassId;
```

```
     BEHAVIOUR
          tcp-systemNBBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          DESCRIPTION
          !!The <internet instanceId> portion of
          the internetClassId value shall be 0.!!;
          ENDPARSE!;;
REGISTERED AS {iimcManagementNB 1 3 6 1 2 1 6 };

tcpConnEntry-tcpConnTableNB  NAME BINDING
     SUBORDINATE OBJECT CLASS     tcpConnEntry
                                   AND SUBCLASSES;
     NAMED BY SUPERIOR OBJECT CLASS
                               tcpConnTable
                                   AND SUBCLASSES;
     WITH ATTRIBUTE
               {iimcManagementDocMan 1}: internetClassId;
     BEHAVIOUR
          tcpConnEntry-tcpConnTableNBBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          INDEX tcpConnLocalAddress,
                tcpConnLocalPort,
                tcpConnRemAddress,
                tcpConnRemPort;
          ENDPARSE!;;
REGISTERED AS {iimcManagementNB 1 3 6 1 2 1 6 13 1};

tcpConnTable-tcpNB  NAME BINDING
     SUBORDINATE OBJECT CLASS     tcpConnTable
                                   AND SUBCLASSES;
     NAMED BY SUPERIOR OBJECT CLASS      tcp
                                   AND SUBCLASSES;
     WITH ATTRIBUTE
               {iimcManagementDocMan 1}: internetClassId;
     BEHAVIOUR
          tcpConnTable-tcpNBBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          DESCRIPTION
          !!The <internet instanceId> portion of
          the internetClassId value shall be 0.!!;
          ENDPARSE!;;
REGISTERED AS {iimcManagementNB 1 3 6 1 2 1 6 13};


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
```

```
                {iimcManagementDocMan 1}: internetClassId;
     BEHAVIOUR
          udp-systemNBBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          DESCRIPTION
          !!The <internet instanceId> portion of
          the internetClassId value shall be 0.!!;
          ENDPARSE!;;
REGISTERED AS {iimcManagementNB 1 3 6 1 2 1 7};

udpEntry-udpTableNB  NAME BINDING
     SUBORDINATE OBJECT CLASS     udpEntry
                                   AND SUBCLASSES;
     NAMED BY SUPERIOR OBJECT CLASS      udpTable
                                   AND SUBCLASSES;
     WITH ATTRIBUTE
                {iimcManagementDocMan 1}: internetClassId;
     BEHAVIOUR
          udpEntry-udpTableNBBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          INDEX udpLocalAddress,
                udpLocalPort;
          ENDPARSE!;;
REGISTERED AS {iimcManagementNB 1 3 6 1 2 1 7 5 1};

udpTable-udpNB  NAME BINDING
     SUBORDINATE OBJECT CLASS     udpTable
                                   AND SUBCLASSES;
     NAMED BY SUPERIOR OBJECT CLASS  udp
                                   AND SUBCLASSES;
     WITH ATTRIBUTE
                {iimcManagementDocMan 1}: internetClassId;
     BEHAVIOUR
          udpTable-udpNBBehaviour BEHAVIOUR
          DEFINED AS
          !BEGINPARSE
          DESCRIPTION
          !!The <internet instanceId> portion of
          the internetClassId value shall be 0.!!;
          ENDPARSE!;;
REGISTERED AS {iimcManagementNB 1 3 6 1 2 1 7 5 1};
```

2.2 IIMCMIB-II ASN.1 Module

```
IIMCRFC1213ASN1 {iimcManagementModAuto 1213 1354}
DEFINITIONS IMPLICIT TAGS ::=
BEGIN
IMPORTS   iimcManagementDocAuto, iimcManagementModAuto,
          iimcAutoTrans, iimcManagementNB,
          FROM IimcAssignedOIDs {iimcManagementModMan 1};

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

iimcMIBII OBJECT IDENTIFIER ::=
                    {iimcManagementDocAuto 1213 1354}

--  Generic syntax

Integer ::= INTEGER

OctetString ::= OCTET STRING

ObjectIdentifier ::= OBJECT IDENTIFIER

--  MIB specific syntax

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

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

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

Integer128      ::= INTEGER (0..127)

Integer64k      ::= INTEGER (0..65535)

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

```
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)
                         }

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
                      }

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

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
                                                }


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) }

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

END
```

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Appendix A (Normative) Managed Object Conformance Statements (MOCS)

Editor's Note: [This section will be filled in prior to publication. When completed, this section will contain a tabular representation of the managed object classes, attributes, notifications, and name bindings defined in this document. The format of these proforma tables will be as defined by ISO/IEC 10165-6.]

Appendix B (Informative) ipForwardNumber Attribute

The ipForwardTable and ipForwardEntry managed objects, derived from the MIB elements in RFC1354, have been included in this MIB translation. It was the intention of the Internet folks that this be an extension to MIB-II. Including the table and its entries into the translated MIB presents no difficulties. Transition to use of the ipForwardTable and ipForwardEntry from the ipRouteTable and ipRouteEntry is recommended and expected to occur.

However, RFC1354 also defined an ipForwardNumber Internet object, but failed to explicitly indicate in what group this attribute belongs.

There are several options for handling this attribute, each with related issues.

1) Do not translate the object at all.
   a. PRO: It is not needed.
   b. PRO: No other Internet tables maintain a count of the number entries in the table - except that the number of ifEntry objects is maintained. But that number (ifNumber) is part of the interfaces class - not the ifTable.
   c. Requests for ifNumber may result in error responses if it is not implemented.
   d. PRO: Error responses are OK in CMIS and SNMPv2.
   e. CON: Error responses invalidate the entire response in SNMPv1. Special handling would have to be handled by a proxy for such cases.
   f. PRO: All proxies must be able to handle unimplemented variables because vendors are inconsistent in implementing all mandatory MIB variables.

2) Put the attribute in the ipForwardTable object class (approach used in previous Draft 1).
   a. CON: Putting the number of entries for a table into the table object class is inconsistent with the design of most Internet MIBs.
   b. CON: Putting non-naming attributes in tables is inconsistent with IIMCIMIBTRANS Draft 2.
   c. CON: Table object classes may go away depending on the resolution of the table issues in Appendix B of IIMCIMIBTRANS Draft 2.

3) Put the attribute in the ip object class as an attribute in the mandatory package (current approach).
   a. PRO: Consistent with approach used for maintaining the number of interfaces (ifNumber).
   b. CON: ifForwardNumber is not required if the ipForwardEntry objects are not supported by the

system (optional).

c. Requests for ifNumber may result in error responses if it is not implemented.
d. PRO: Error responses are OK in CMIS and SNMPv2.
e. CON: Error responses invalidate the entire response in SNMPv1. Special handling would have to be handled by a proxy for such cases.
f. PRO: All proxies must be able to handle unimplemented variables because vendors are inconsistent in implementing all mandatory MIB variables.

4) Put the attribute in the ip object class as an attribute in a conditional package.

a. PRO: Consistent with ISO practice for handling optional attributes.
a. CON: We have no translation rules that cover conditional packages and their registration
b. CON: Optional attributes are an anomaly for Internet MIBs. We should not develop a special case for this attribute.

Comments on this issue are solicited by reviewers.