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Republishing the IPV6-specific MIB modules as obsolete draft-ietf-6man-ipv6-mibs-obsolete-02

Abstract

In 2005, the IPv6 MIB update group published updated versions of the IP-MIB, UDP-MIB, TCP-MIB and IP-FORWARD-MIB modules, which use the InetAddressType/InetAddress construct to handle IPv4 and IPv6 in the same table. This document contains versions of the obsoleted IPV6-MIB, IPV6-TC, IPV6-ICMP-MIB, IPV6-TCP-MIB and IPV6-UDP-MIB modules, for the purpose of updating MIB module repositories.

Status of This Memo

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1. Motivation

In 2005, the IPv6 MIB update group published updated versions of the IP-MIB [RFC4293], UDP-MIB [RFC4113], TCP-MIB [RFC4022] and IP-FORWARD-MIB [RFC4292] modules, which use the InetAddressType/InetAddress construct to handle IPv4 and IPv6 in the same table. These documents were marked in the RFC Index as obsoleting the corresponding IPv6-MIBs, but the extracted content of these MIBs

never changed in MIB repositories, and the original RFCs (as is normal IETF policy) never changed from being Proposed Standard.

Note that the timeline of these MIB modules looks like shown below (and it is the added support for IPv6 in the later revision of the original modules that people often overlook).

IPv6-MIB-----X
\
IP-MIB-----IP-MIB--->

This causes an unclear situation when simply looking at MIB repositories, so we are simply republishing these MIB modules with the SMI syntax changed to obsolete. This is an unusual step, and is not the intended path with every obsolete MIB module; the special history of these modules lead to this special step.

2. Historic IPV6-TC

IPV6-TC DEFINITIONS ::= BEGIN

IMPORTS

Integer32 FROM SNMPv2-SMI TEXTUAL-CONVENTION FROM SNMPv2-TC;

-- definition of textual conventions
Ipv6Address ::= TEXTUAL-CONVENTION

DISPLAY-HINT "2x:"
STATUS obsolete

DESCRIPTION

"This data type is used to model IPv6 addresses. This is a binary string of 16 octets in network byte-order.

This object is obsoleted by INET-ADDRESS-MIB::InetAddress."
SYNTAX OCTET STRING (SIZE (16))

Ipv6AddressPrefix ::= TEXTUAL-CONVENTION

DISPLAY-HINT "2x:" STATUS obsolete

DESCRIPTION

"This data type is used to model IPv6 address prefixes. This is a binary string of up to 16 octets in network byte-order.

This object is obsoleted by INET-ADDRESS-MIB::InetAddress." SYNTAX OCTET STRING (SIZE (0..16))

STATUS

DESCRIPTION

```
Ipv6AddressIfIdentifier ::= TEXTUAL-CONVENTION
    DISPLAY-HINT "2x:"
    STATUS     obsolete
    DESCRIPTION
        "This data type is used to model IPv6 address
        interface identifiers. This is a binary string
        of up to 8 octets in network byte-order.

    This object is obsoleted by IP-MIB::Ipv6AddressIfIdentifierTC."
    SYNTAX     OCTET STRING (SIZE (0..8))

Ipv6IfIndex ::= TEXTUAL-CONVENTION
    DISPLAY-HINT "d"
```

obsolete

"A unique value, greater than zero for each internetwork-layer interface in the managed system. It is recommended that values are assigned contiguously starting from 1. The value for each internetwork-layer interface must remain constant at least from one re-initialization of the entity's network management system to the next re-initialization.

This object is obsoleted by IF-MIB::InterfaceIndex."
SYNTAX Integer32 (1..2147483647)

"This textual convention is an extension of the Ipv6IfIndex convention. The latter defines a greater than zero value used to identify an IPv6 interface in the managed system. This extension permits the additional value of zero. The value zero is object-specific and must therefore be defined as part of the description of any object which uses this syntax. Examples of the usage of zero might include situations where interface was unknown, or when none or all interfaces need to be referenced.

This object is obsoleted by IF-MIB::InterfaceIndexOrZero." SYNTAX Integer32 (0..2147483647)

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3. Historic IPV6-MIB

```
IPV6-MIB DEFINITIONS ::= BEGIN
IMPORTS
   MODULE-IDENTITY, OBJECT-TYPE, NOTIFICATION-TYPE,
   mib-2, Counter32, Unsigned32, Integer32,
    Gauge32
                                          FROM SNMPv2-SMI
    DisplayString, PhysAddress, TruthValue, TimeStamp,
   VariablePointer, RowPointer
                                         FROM SNMPv2-TC
   MODULE-COMPLIANCE, OBJECT-GROUP,
    NOTIFICATION-GROUP
                                          FROM SNMPv2-CONF
    Ipv6IfIndex, Ipv6Address, Ipv6AddressPrefix,
    Ipv6AddressIfIdentifier,
    Ipv6IfIndex0rZero
                                         FROM IPV6-TC;
ipv6MIB MODULE-IDENTITY
    LAST-UPDATED "201505282112Z"
    ORGANIZATION "IETF IPv6 Working Group"
    CONTACT-INFO
                  Dimitry Haskin
          Postal: Bay Networks, Inc.
                  660 Techology Park Drive.
                  Billerica, MA 01821
                  US
             Tel: +1-978-916-8124
          E-mail: dhaskin@baynetworks.com
                  Steve Onishi
          Postal: Bay Networks, Inc.
                  3 Federal Street
                  Billerica, MA 01821
                  US
             Tel: +1-978-916-3816
          E-mail: sonishi@baynetworks.com"
    DESCRIPTION
      "The obsolete MIB module for entities implementing the IPv6
       protocol. Use the IP-MIB or IP-FORWARD-MIB instead."
    REVISION "201505282112Z"
    DESCRIPTION
      "Obsoleting this MIB module; it has been replaced by
      the revised IP-MIB (RFC4293) and IP-FORWARD-MIB
      (RFC4292)."
```

```
REVISION "9802052155Z"
    DESCRIPTION
      "First revision, published as <a href="RFC2465">RFC2465</a>"
    ::= { mib-2 55 }
-- the IPv6 general group
ipv6MIBObjects OBJECT IDENTIFIER ::= { ipv6MIB 1 }
ipv6Forwarding OBJECT-TYPE
    SYNTAX
                INTEGER {
                 forwarding(1),
                                   -- acting as a router
                                   -- NOT acting as
                 notForwarding(2) -- a router
                }
     MAX-ACCESS read-write
                obsolete
     STATUS
     DESCRIPTION
       "The indication of whether this entity is acting
       as an IPv6 router in respect to the forwarding of
       datagrams received by, but not addressed to, this
       entity. IPv6 routers forward datagrams. IPv6
       hosts do not (except those source-routed via the
       host).
       Note that for some managed nodes, this object may
       take on only a subset of the values possible.
       Accordingly, it is appropriate for an agent to
       return a `wrongValue' response if a management
       station attempts to change this object to an
       inappropriate value.
```

DEFVAL { 64 }

This object is obsoleted by IP-MIB::ipv6IpDefaultHopLimit."

```
::= { ipv6MIBObjects 2 }
ipv6Interfaces OBJECT-TYPE
     SYNTAX
                Unsigned32
    MAX-ACCESS read-only
     STATUS
            obsolete
     DESCRIPTION
       "The number of IPv6 interfaces (regardless of
       their current state) present on this system.
       This object is obsolete; there is no direct replacement
       but its value can be derived from the number of rows
       in the IP-MIB::ipv6InterfaceTable."
     ::= { ipv6MIBObjects 3 }
ipv6IfTableLastChange OBJECT-TYPE
     SYNTAX
               TimeStamp
    MAX-ACCESS read-only
     STATUS
            obsolete
     DESCRIPTION
      "The value of sysUpTime at the time of the last
      insertion or removal of an entry in the
      ipv6IfTable. If the number of entries has been
      unchanged since the last re-initialization of
      the local network management subsystem, then this
      object contains a zero value.
      This object is obsoleted by
      IP-MIB::ipv6InterfaceTableLastChange."
     ::= { ipv6MIBObjects 4 }
-- the IPv6 Interfaces table
ipv6IfTable OBJECT-TYPE
               SEQUENCE OF Ipv6IfEntry
    MAX-ACCESS not-accessible
    STATUS
               obsolete
     DESCRIPTION
      "The IPv6 Interfaces table contains information
      on the entity's internetwork-layer interfaces.
      An IPv6 interface constitutes a logical network
      layer attachment to the layer immediately below
```

IPv6 including internet layer 'tunnels', such as

This table is obsoleted by IP-MIB::ipv6InterfaceTable."

tunnels over IPv4 or IPv6 itself.

::= { ipv6MIBObjects 5 }

[Page 7]

```
ipv6IfEntry OBJECT-TYPE
    SYNTAX
               Ipv6IfEntry
   MAX-ACCESS not-accessible
    STATUS
              obsolete
    DESCRIPTION
      "An interface entry containing objects
       about a particular IPv6 interface.
      This object is obsoleted by IP-MIB::ipv6InterfaceEntry."
    INDEX { ipv6IfIndex }
    ::= { ipv6IfTable 1 }
Ipv6IfEntry ::= SEQUENCE {
        ipv6IfIndex
                                 Ipv6IfIndex,
        ipv6IfDescr
                                 DisplayString,
        ipv6IfLowerLayer
                                 VariablePointer,
        ipv6IfEffectiveMtu
                                 Unsigned32,
        ipv6IfReasmMaxSize
                                 Unsigned32,
                                 Ipv6AddressIfIdentifier,
        ipv6IfIdentifier
        ipv6IfIdentifierLength
                                 INTEGER,
        ipv6IfPhysicalAddress
                                 PhysAddress,
        ipv6IfAdminStatus
                                 INTEGER,
        ipv6If0perStatus
                                 INTEGER,
        ipv6IfLastChange
                                 TimeStamp
    }
ipv6IfIndex OBJECT-TYPE
    SYNTAX
              Ipv6IfIndex
    MAX-ACCESS not-accessible
    STATUS
              obsolete
    DESCRIPTION
      "A unique non-zero value identifying
       the particular IPv6 interface.
       This object is obsoleted. In the IP-MIB,
       interfaces are simply identified by IfIndex."
    ::= { ipv6IfEntry 1 }
ipv6IfDescr OBJECT-TYPE
    SYNTAX
               DisplayString
   MAX-ACCESS read-write
    STATUS
             obsolete
    DESCRIPTION
      "A textual string containing information about the
     interface. This string may be set by the network
     management system.
     This object is obsoleted by IF-MIB::ifDescr."
```

```
::= { ipv6IfEntry 2 }
ipv6IfLowerLayer OBJECT-TYPE
   SYNTAX
              VariablePointer
   MAX-ACCESS read-only
   STATUS
              obsolete
   DESCRIPTION
     "This object identifies the protocol layer over
     which this network interface operates. If this
      network interface operates over the data-link
      layer, then the value of this object refers to an
      instance of ifIndex [6]. If this network interface
      operates over an IPv4 interface, the value of this
      object refers to an instance of ipAdEntAddr [3].
     If this network interface operates over another
      IPv6 interface, the value of this object refers to
      an instance of ipv6IfIndex. If this network
      interface is not currently operating over an active
      protocol layer, then the value of this object
      should be set to the OBJECT ID { 0 0 }.
     This object is obsolete. The IF-STACK-TABLE may
      be used to express relationships between interfaces."
   ::= { ipv6IfEntry 3 }
ipv6IfEffectiveMtu OBJECT-TYPE
   SYNTAX
              Unsigned32
              "octets"
   UNITS
  MAX-ACCESS read-only
  STATUS
              obsolete
   DESCRIPTION
     "The size of the largest IPv6 packet which can be
    sent/received on the interface, specified in
    octets.
    This object is obsolete. The value of IF-MIB::ifMtu
    for the corresponding value of ifIndex represents the
    MTU of the interface."
::= { ipv6IfEntry 4 }
ipv6IfReasmMaxSize OBJECT-TYPE
  SYNTAX
              Unsigned32 (0..65535)
   UNITS
               "octets"
  MAX-ACCESS read-only
              obsolete
   STATUS
   DESCRIPTION
     "The size of the largest IPv6 datagram which this
```

entity can re-assemble from incoming IPv6 fragmented datagrams received on this interface. This object is obsoleted by IP-MIB::ipv6InterfaceReasmMaxSize." ::= { ipv6IfEntry 5 } ipv6IfIdentifier OBJECT-TYPE SYNTAX Ipv6AddressIfIdentifier MAX-ACCESS read-write obsolete STATUS DESCRIPTION "The Interface Identifier for this interface that is (at least) unique on the link this interface is attached to. The Interface Identifier is combined with an address prefix to form an interface address. By default, the Interface Identifier is autoconfigured according to the rules of the link type this interface is attached to. This object is obsoleted by IP-MIB::ipv6InterfaceIdentifier." ::= { ipv6IfEntry 6 } ipv6IfIdentifierLength OBJECT-TYPE SYNTAX INTEGER (0..64)UNITS "bits" MAX-ACCESS read-write STATUS obsolete DESCRIPTION "The length of the Interface Identifier in bits. This object is obsolete. It can be derived from the length of IP-MIB::ipv6InterfaceIdentifier; Interface Identifiers that are not an even number of octets are not supported." ::= { ipv6IfEntry 7 } ipv6IfPhysicalAddress OBJECT-TYPE PhysAddress SYNTAX MAX-ACCESS read-only STATUS obsolete DESCRIPTION "The interface's physical address. For example, for an IPv6 interface attached to an 802.x link, this object normally contains a MAC address. Note that in some cases this address may differ from the address of the interface's protocol sub-layer. The

interface's media-specific MIB must define the bit and byte ordering and the format of the value of

```
this object. For interfaces which do not have such
      an address (e.g., a serial line), this object should
      contain an octet string of zero length.
      This object is obsoleted by IF-MIB::ifPhysAddress."
     ::= { ipv6IfEntry 8 }
ipv6IfAdminStatus OBJECT-TYPE
   SYNTAX INTEGER {
            up(1), -- ready to pass packets
            down(2)
   MAX-ACCESS read-write
    STATUS
               obsolete
   DESCRIPTION
      "The desired state of the interface. When a managed
     system initializes, all IPv6 interfaces start with
     ipv6IfAdminStatus in the down(2) state. As a result
     of either explicit management action or per
     configuration information retained by the managed
     system, ipv6IfAdminStatus is then changed to
     the up(1) state (or remains in the down(2) state).
     This object is obsolete. IPv6 does not have a
     separate admin status; the admin status of the
     interface is represented by IF-MIB::ifAdminStatus."
    ::= { ipv6IfEntry 9 }
ipv6If0perStatus OBJECT-TYPE
    SYNTAX INTEGER {
            up(1),
                             -- ready to pass packets
            down(2),
            noIfIdentifier(3), -- no interface identifier
                               -- status can not be
                               -- determined for some
            unknown(4),
                               -- reason
                               -- some component is
            notPresent(5) -- missing
   MAX-ACCESS read-only
```

"The current operational state of the interface. The noIfIdentifier(3) state indicates that no valid Interface Identifier is assigned to the interface.

obsolete

STATUS

DESCRIPTION

This state usually indicates that the link-local interface address failed Duplicate Address Detection. If ipv6IfAdminStatus is down(2) then ipv6IfOperStatus should be down(2). If ipv6IfAdminStatus is changed to up(1) then ipv6IfOperStatus should change to up(1) if the interface is ready to transmit and receive network traffic; it should remain in the down(2) or noIfIdentifier(3) state if and only if there is a fault that prevents it from going to the up(1) state; it should remain in the notPresent(5) state if the interface has missing (typically, lower layer) components.

This object is obsolete. IPv6 does not have a separate operational status; the operational status of the interface is represented by IF-MIB::ifOperStatus."
::= { ipv6IfEntry 10 }

ipv6IfLastChange OBJECT-TYPE

SYNTAX TimeStamp
MAX-ACCESS read-only
STATUS obsolete
DESCRIPTION

"The value of sysUpTime at the time the interface entered its current operational state. If the current state was entered prior to the last re-initialization of the local network management subsystem, then this object contains a zero value.

This object is obsolete. The last change of IF-MIB::ifOperStatus is represented by IF-MIB::ifLastChange."
::= { ipv6IfEntry 11 }

-- IPv6 Interface Statistics table

ipv6IfStatsTable OBJECT-TYPE
 SYNTAX SEQUENCE OF Ipv6IfStatsEntry
 MAX-ACCESS not-accessible
 STATUS obsolete
 DESCRIPTION
 "IPv6 interface traffic statistics."

This table is obsoleted by the IP-MIB::ipIfStatsTable."
::= { ipv6MIBObjects 6 }

```
MAX-ACCESS not-accessible
    STATUS obsolete
    DESCRIPTION
        "An interface statistics entry containing objects
        at a particular IPv6 interface.
        This object is obsoleted by the IP-MIB::ipIfStatsEntry."
   AUGMENTS { ipv6IfEntry }
    ::= { ipv6IfStatsTable 1 }
Ipv6IfStatsEntry ::= SEQUENCE {
        ipv6IfStatsInReceives
            Counter32,
        ipv6IfStatsInHdrErrors
            Counter32,
        ipv6IfStatsInTooBigErrors
            Counter32,
        ipv6IfStatsInNoRoutes
            Counter32,
        ipv6IfStatsInAddrErrors
            Counter32,
        ipv6IfStatsInUnknownProtos
            Counter32,
        ipv6IfStatsInTruncatedPkts
            Counter32,
        ipv6IfStatsInDiscards
            Counter32,
        ipv6IfStatsInDelivers
            Counter32,
        ipv6IfStatsOutForwDatagrams
            Counter32,
        ipv6IfStatsOutRequests
            Counter32,
        ipv6IfStatsOutDiscards
            Counter32,
        ipv6IfStatsOutFragOKs
            Counter32,
        ipv6IfStatsOutFragFails
            Counter32,
        ipv6IfStatsOutFragCreates
            Counter32,
        ipv6IfStatsReasmReqds
            Counter32,
        ipv6IfStatsReasm0Ks
            Counter32,
        ipv6IfStatsReasmFails
            Counter32,
        ipv6IfStatsInMcastPkts
```

```
Counter32,
       ipv6IfStatsOutMcastPkts
           Counter32
    }
ipv6IfStatsInReceives OBJECT-TYPE
   SYNTAX Counter32
   MAX-ACCESS read-only
   STATUS
           obsolete
    DESCRIPTION
      "The total number of input datagrams received by
      the interface, including those received in error.
      This object is obsoleted by IP-MIB::ipIfStatsHCInReceives."
    ::= { ipv6IfStatsEntry 1 }
ipv6IfStatsInHdrErrors OBJECT-TYPE
    SYNTAX
             Counter32
   MAX-ACCESS read-only
              obsolete
    STATUS
    DESCRIPTION
       "The number of input datagrams discarded due to
      errors in their IPv6 headers, including version
      number mismatch, other format errors, hop count
      exceeded, errors discovered in processing their
      IPv6 options, etc.
      This object is obsoleted by IP-MIB::ipIfStatsInHdrErrors."
    ::= { ipv6IfStatsEntry 2 }
ipv6IfStatsInTooBigErrors OBJECT-TYPE
    SYNTAX
               Counter32
   MAX-ACCESS read-only
    STATUS
           obsolete
   DESCRIPTION
     "The number of input datagrams that could not be
     forwarded because their size exceeded the link MTU
     of outgoing interface.
     This object is obsoleted. It was not replicated in the
     IP-MIB due to feedback that systems did not retain the
     incoming interface of a packet that failed fragmentation."
    ::= { ipv6IfStatsEntry 3 }
ipv6IfStatsInNoRoutes OBJECT-TYPE
    SYNTAX
            Counter32
   MAX-ACCESS read-only
    STATUS obsolete
```

DESCRIPTION

"The number of input datagrams discarded because no route could be found to transmit them to their destination.

This object is obsoleted by IP-MIB::ipIfStatsInNoRoutes."
::= { ipv6IfStatsEntry 4 }

ipv6IfStatsInAddrErrors OBJECT-TYPE

SYNTAX Counter32 MAX-ACCESS read-only STATUS obsolete

DESCRIPTION

"The number of input datagrams discarded because the IPv6 address in their IPv6 header's destination field was not a valid address to be received at this entity. This count includes invalid addresses (e.g., ::0) and unsupported addresses (e.g., addresses with unallocated prefixes). For entities which are not IPv6 routers and therefore do not forward datagrams, this counter includes datagrams discarded because the destination address was not a local address.

This object is obsoleted by IP-MIB::ipIfStatsInAddrErrors."
::= { ipv6IfStatsEntry 5 }

ipv6IfStatsInUnknownProtos OBJECT-TYPE

SYNTAX Counter32 MAX-ACCESS read-only STATUS obsolete

DESCRIPTION

"The number of locally-addressed datagrams received successfully but discarded because of an unknown or unsupported protocol. This counter is incremented at the interface to which these datagrams were addressed which might not be necessarily the input interface for some of the datagrams.

This object is obsoleted by IP-MIB::ipIfStatsInUnknownProtos."
::= { ipv6IfStatsEntry 6 }

ipv6IfStatsInTruncatedPkts OBJECT-TYPE

SYNTAX Counter32
MAX-ACCESS read-only
STATUS obsolete
DESCRIPTION

```
"The number of input datagrams discarded because
       datagram frame didn't carry enough data.
       This object is obsoleted by IP-MIB::ipIfStatsInTruncatedPkts."
    ::= { ipv6IfStatsEntry 7 }
ipv6IfStatsInDiscards OBJECT-TYPE
    SYNTAX
            Counter32
   MAX-ACCESS read-only
    STATUS
           obsolete
    DESCRIPTION
       "The number of input IPv6 datagrams for which no
      problems were encountered to prevent their
      continued processing, but which were discarded
       (e.g., for lack of buffer space). Note that this
      counter does not include any datagrams discarded
      while awaiting re-assembly.
      This object is obsoleted by IP-MIB::ipIfStatsInDiscards."
    ::= { ipv6IfStatsEntry 8 }
ipv6IfStatsInDelivers OBJECT-TYPE
    SYNTAX Counter32
   MAX-ACCESS read-only
    STATUS
           obsolete
    DESCRIPTION
    "The total number of datagrams successfully
    delivered to IPv6 user-protocols (including ICMP).
    This counter is incremented at the interface to
    which these datagrams were addressed which might
    not be necessarily the input interface for some of
    the datagrams.
    This object is obsoleted by IP-MIB::ipIfStatsHCInDelivers."
    ::= { ipv6IfStatsEntry 9 }
ipv6IfStatsOutForwDatagrams OBJECT-TYPE
    SYNTAX
           Counter32
   MAX-ACCESS read-only
    STATUS
               obsolete
    DESCRIPTION
       "The number of output datagrams which this
      entity received and forwarded to their final
      destinations. In entities which do not act
      as IPv6 routers, this counter will include
      only those packets which were Source-Routed
      via this entity, and the Source-Route
      processing was successful. Note that for
```

```
a successfully forwarded datagram the counter
      of the outgoing interface is incremented.
      This object is obsoleted by
      IP-MIB::ipIfStatsHCOutForwDatagrams."
    ::= { ipv6IfStatsEntry 10 }
ipv6IfStatsOutRequests OBJECT-TYPE
    SYNTAX
             Counter32
   MAX-ACCESS read-only
    STATUS obsolete
    DESCRIPTION
    "The total number of IPv6 datagrams which local IPv6
    user-protocols (including ICMP) supplied to IPv6 in
    requests for transmission. Note that this counter
    does not include any datagrams counted in
    ipv6IfStatsOutForwDatagrams.
    This object is obsoleted by IP-MIB::ipIfStatsHCOutRequests."
    ::= { ipv6IfStatsEntry 11 }
ipv6IfStatsOutDiscards OBJECT-TYPE
           Counter32
    SYNTAX
   MAX-ACCESS read-only
            obsolete
   STATUS
    DESCRIPTION
        "The number of output IPv6 datagrams for which no
       problem was encountered to prevent their
       transmission to their destination, but which were
       discarded (e.g., for lack of buffer space). Note
       that this counter would include datagrams counted
       in ipv6IfStatsOutForwDatagrams if any such packets
       met this (discretionary) discard criterion.
       This object is obsoleted by IP-MIB::ipIfStatsOutDiscards."
    ::= { ipv6IfStatsEntry 12 }
ipv6IfStatsOutFragOKs OBJECT-TYPE
    SYNTAX Counter32
   MAX-ACCESS read-only
    STATUS
             obsolete
    DESCRIPTION
       "The number of IPv6 datagrams that have been
       successfully fragmented at this output interface.
       This object is obsoleted by IP-MIB::ipIfStatsOutFragOKs."
    ::= { ipv6IfStatsEntry 13 }
```

```
ipv6IfStatsOutFragFails OBJECT-TYPE
    SYNTAX
               Counter32
   MAX-ACCESS read-only
               obsolete
   STATUS
   DESCRIPTION
       "The number of IPv6 datagrams that have been
       discarded because they needed to be fragmented
       at this output interface but could not be.
       This object is obsoleted by IP-MIB::ipIfStatsOutFragFails."
    ::= { ipv6IfStatsEntry 14 }
ipv6IfStatsOutFragCreates OBJECT-TYPE
    SYNTAX
               Counter32
   MAX-ACCESS read-only
   STATUS
               obsolete
   DESCRIPTION
       "The number of output datagram fragments that have
       been generated as a result of fragmentation at
       this output interface.
       This object is obsoleted by IP-MIB::ipIfStatsOutFragCreates."
    ::= { ipv6IfStatsEntry 15 }
ipv6IfStatsReasmReads OBJECT-TYPE
    SYNTAX
            Counter32
   MAX-ACCESS read-only
               obsolete
    STATUS
   DESCRIPTION
       "The number of IPv6 fragments received which needed
       to be reassembled at this interface. Note that this
       counter is incremented at the interface to which
       these fragments were addressed which might not
       be necessarily the input interface for some of
       the fragments.
       This object is obsoleted by IP-MIB::ipIfStatsReasmReqds."
    ::= { ipv6IfStatsEntry 16 }
ipv6IfStatsReasm0Ks OBJECT-TYPE
    SYNTAX
           Counter32
   MAX-ACCESS read-only
   STATUS
           obsolete
    DESCRIPTION
      "The number of IPv6 datagrams successfully
      reassembled. Note that this counter is incremented
     at the interface to which these datagrams were
      addressed which might not be necessarily the input
```

```
interface for some of the fragments.
     This object is obsoleted by IP-MIB::ipIfStatsReasmOKs."
    ::= { ipv6IfStatsEntry 17 }
ipv6IfStatsReasmFails OBJECT-TYPE
    SYNTAX
           Counter32
   MAX-ACCESS read-only
   STATUS
           obsolete
    DESCRIPTION
      "The number of failures detected by the IPv6 re-
      assembly algorithm (for whatever reason: timed
      out, errors, etc.). Note that this is not
      necessarily a count of discarded IPv6 fragments
      since some algorithms (notably the algorithm in
      RFC 815) can lose track of the number of fragments
      by combining them as they are received.
      This counter is incremented at the interface to which
      these fragments were addressed which might not be
      necessarily the input interface for some of the
      fragments.
      This object is obsoleted by IP-MIB::ipIfStatsReasmFails."
    ::= { ipv6IfStatsEntry 18 }
ipv6IfStatsInMcastPkts OBJECT-TYPE
    SYNTAX Counter32
   MAX-ACCESS read-only
            obsolete
   STATUS
    DESCRIPTION
      "The number of multicast packets received
       by the interface
       This object is obsoleted by IP-MIB::ipIfStatsHCInMcastPkts."
    ::= { ipv6IfStatsEntry 19 }
ipv6IfStatsOutMcastPkts OBJECT-TYPE
    SYNTAX
           Counter32
   MAX-ACCESS read-only
    STATUS
               obsolete
    DESCRIPTION
       "The number of multicast packets transmitted
       by the interface
```

This object is obsoleted by IP-MIB::ipIfStatsHCOutMcastPkts."

-- Address Prefix table

::= { ipv6IfStatsEntry 20 }

```
-- The IPv6 Address Prefix table contains information on
-- the entity's IPv6 Address Prefixes that are associated
-- with IPv6 interfaces.
ipv6AddrPrefixTable OBJECT-TYPE
    SYNTAX SEQUENCE OF Ipv6AddrPrefixEntry
   MAX-ACCESS not-accessible
    STATUS
               obsolete
    DESCRIPTION
        "The list of IPv6 address prefixes of
        IPv6 interfaces.
        This table is obsoleted by IP-MIB::ipAddressPrefixTable."
    ::= { ipv6MIBObjects 7 }
ipv6AddrPrefixEntry OBJECT-TYPE
    SYNTAX Ipv6AddrPrefixEntry
   MAX-ACCESS not-accessible
    STATUS
               obsolete
    DESCRIPTION
        "An interface entry containing objects of
        a particular IPv6 address prefix.
        This entry is obsoleted by IP-MIB::ipAddressPrefixEntry."
    INDEX
           { ipv6IfIndex,
              ipv6AddrPrefix,
              ipv6AddrPrefixLength }
    ::= { ipv6AddrPrefixTable 1 }
Ipv6AddrPrefixEntry ::= SEQUENCE {
    ipv6AddrPrefix
                                        Ipv6AddressPrefix,
    ipv6AddrPrefixLength
                                        INTEGER,
    ipv6AddrPrefixOnLinkFlag
                                        TruthValue,
    ipv6AddrPrefixAutonomousFlag
                                        TruthValue,
    ipv6AddrPrefixAdvPreferredLifetime Unsigned32,
    ipv6AddrPrefixAdvValidLifetime
                                        Unsigned32
    }
ipv6AddrPrefix OBJECT-TYPE
               Ipv6AddressPrefix
    SYNTAX
   MAX-ACCESS not-accessible
    STATUS obsolete
    DESCRIPTION
      "The prefix associated with the this interface.
     This object is obsoleted by IP-MIB::ipAddressPrefixPrefix."
```

::= { ipv6AddrPrefixEntry 1 }

```
ipv6AddrPrefixLength OBJECT-TYPE
    SYNTAX
               INTEGER (0..128)
               "bits"
   UNTTS
   MAX-ACCESS not-accessible
   STATUS
           obsolete
   DESCRIPTION
      "The length of the prefix (in bits).
     This object is obsoleted by IP-MIB::ipAddressPrefixLength."
    ::= { ipv6AddrPrefixEntry 2 }
ipv6AddrPrefixOnLinkFlag OBJECT-TYPE
               TruthValue
    SYNTAX
   MAX-ACCESS read-only
   STATUS obsolete
   DESCRIPTION
      "This object has the value 'true(1)', if this
     prefix can be used for on-link determination
     and the value 'false(2)' otherwise.
     This object is obsoleted by IP-MIB::ipAddressPrefixOnLinkFlag."
    ::= { ipv6AddrPrefixEntry 3 }
ipv6AddrPrefixAutonomousFlag OBJECT-TYPE
    SYNTAX
              TruthValue
   MAX-ACCESS read-only
           obsolete
   STATUS
    DESCRIPTION
      "Autonomous address configuration flag. When
     true(1), indicates that this prefix can be used
     for autonomous address configuration (i.e. can
     be used to form a local interface address).
      If false(2), it is not used to autoconfigure
      a local interface address.
     This object is obsoleted by
      IP-MIB::ipAddressPrefixAutonomousFlag."
    ::= { ipv6AddrPrefixEntry 4 }
ipv6AddrPrefixAdvPreferredLifetime OBJECT-TYPE
    SYNTAX
               Unsigned32
    UNITS
               "seconds"
   MAX-ACCESS read-only
               obsolete
   STATUS
   DESCRIPTION
      "It is the length of time in seconds that this
      prefix will remain preferred, i.e. time until
      deprecation. A value of 4,294,967,295 represents
```

```
infinity.
```

The address generated from a deprecated prefix should no longer be used as a source address in new communications, but packets received on such an interface are processed as expected.

```
This object is obsoleted by IP-MIB::ipAddressPrefixAdvPreferredLifetime." ::= { ipv6AddrPrefixEntry 5 }
```

ipv6AddrPrefixAdvValidLifetime OBJECT-TYPE

SYNTAX Unsigned32 UNITS "seconds" MAX-ACCESS read-only STATUS obsolete DESCRIPTION

"It is the length of time in seconds that this prefix will remain valid, i.e. time until invalidation. A value of 4,294,967,295 represents infinity.

The address generated from an invalidated prefix should not appear as the destination or source address of a packet.

```
This object is obsoleted by IP-MIB::ipAddressPrefixAdvValidLifetime." 
::= { ipv6AddrPrefixEntry 6 }
```

- -- the IPv6 Address table
- -- The IPv6 address table contains this node's IPv6
- -- addressing information.

ipv6AddrTable OBJECT-TYPE

SYNTAX SEQUENCE OF Ipv6AddrEntry

MAX-ACCESS not-accessible

STATUS obsolete

DESCRIPTION

"The table of addressing information relevant to this node's interface addresses.

```
This table is obsoleted by IP-MIB::ipAddressTable."
::= { ipv6MIBObjects 8 }
```

```
MAX-ACCESS not-accessible
  STATUS
          obsolete
  DESCRIPTION
      "The addressing information for one of this
      node's interface addresses.
      This entry is obsoleted by IP-MIB::ipAddressEntry."
   INDEX { ipv6IfIndex, ipv6AddrAddress }
   ::= { ipv6AddrTable 1 }
Ipv6AddrEntry ::=
   SEQUENCE {
       ipv6AddrAddress
                              Ipv6Address,
       ipv6AddrPfxLength
                              INTEGER,
       ipv6AddrType
                             INTEGER,
       ipv6AddrAnycastFlag TruthValue,
       ipv6AddrStatus
                             INTEGER
      }
ipv6AddrAddress OBJECT-TYPE
   SYNTAX
              Ipv6Address
  MAX-ACCESS not-accessible
  STATUS
             obsolete
   DESCRIPTION
    "The IPv6 address to which this entry's addressing
    information pertains.
    This object is obsoleted by IP-MIB::ipAddressAddr."
   ::= { ipv6AddrEntry 1 }
ipv6AddrPfxLength OBJECT-TYPE
   SYNTAX
              INTEGER(0..128)
  UNITS
              "bits"
  MAX-ACCESS read-only
  STATUS
              obsolete
   DESCRIPTION
     "The length of the prefix (in bits) associated with
    the IPv6 address of this entry.
    This object is obsoleted by the IP-MIB::ipAddressPrefixLength
    in the row of the IP-MIB::ipAddressPrefixTable to which the
    IP-MIB::ipAddressPrefix points."
   ::= { ipv6AddrEntry 2 }
ipv6AddrType OBJECT-TYPE
  SYNTAX
              INTEGER {
```

-- address has been formed

-- using stateless

```
stateless(1), -- autoconfiguration
                       -- address has been acquired
                       -- by stateful means
                       -- (e.g. DHCPv6, manual
       stateful(2),
                       -- configuration)
                       -- type can not be determined
                     -- for some reason.
       unknown(3)
  MAX-ACCESS read-only
   STATUS
              obsolete
  DESCRIPTION
      "The type of address. Note that 'stateless(1)'
      refers to an address that was statelessly
      autoconfigured; 'stateful(2)' refers to a address
     which was acquired by via a stateful protocol
      (e.g. DHCPv6, manual configuration).
     This object is obsoleted by IP-MIB::ipAddressOrigin."
   ::= { ipv6AddrEntry 3 }
ipv6AddrAnycastFlag OBJECT-TYPE
    SYNTAX
               TruthValue
   MAX-ACCESS read-only
    STATUS
           obsolete
   DESCRIPTION
      "This object has the value 'true(1)', if this
      address is an anycast address and the value
      'false(2)' otherwise.
     This object is obsoleted by a value of 'anycast(2)'
      in IP-MIB::ipAddressType."
    ::= { ipv6AddrEntry 4 }
ipv6AddrStatus OBJECT-TYPE
  SYNTAX
              INTEGER {
           preferred(1),
           deprecated(2),
            invalid(3),
            inaccessible(4),
           unknown(5) -- status can not be determined
                        -- for some reason.
          }
  MAX-ACCESS read-only
              obsolete
   STATUS
  DESCRIPTION
     "Address status. The preferred(1) state indicates
```

that this is a valid address that can appear as the destination or source address of a packet. The deprecated(2) state indicates that this is a valid but deprecated address that should no longer be used as a source address in new communications, but packets addressed to such an address are processed as expected. The invalid(3) state indicates that this is not valid address which should not appear as the destination or source address of a packet. The inaccessible(4) state indicates that the address is not accessible because the interface to which this address is assigned is not operational. This object is obsoleted by IP-MIB::ipAddressStatus." ::= { ipv6AddrEntry 5 } -- IPv6 Routing objects ipv6RouteNumber OBJECT-TYPE SYNTAX Gauge32 MAX-ACCESS read-only STATUS obsolete DESCRIPTION "The number of current ipv6RouteTable entries. This is primarily to avoid having to read the table in order to determine this number. This object is obsoleted by IP-FORWARD-MIB::inetCidrRouteNumber." ::= { ipv6MIBObjects 9 } ipv6DiscardedRoutes OBJECT-TYPE SYNTAX Counter32 MAX-ACCESS read-only STATUS obsolete DESCRIPTION "The number of routing entries which were chosen to be discarded even though they are valid. One possible reason for discarding such an entry could be to free-up buffer space for other routing entries.

ipv6RouteTable OBJECT-TYPE

-- IPv6 Routing table

This object is obsoleted by

::= { ipv6MIBObjects 10 }

IP-FORWARD-MIB::inetCidrRouteDiscards."

```
SEQUENCE OF Ipv6RouteEntry
    SYNTAX
   MAX-ACCESS not-accessible
    STATUS
              obsolete
    DESCRIPTION
      "IPv6 Routing table. This table contains
      an entry for each valid IPv6 unicast route
      that can be used for packet forwarding
      determination.
      This table is obsoleted by IP-FORWARD-MIB::inetCidrRouteTable."
    ::= { ipv6MIBObjects 11 }
ipv6RouteEntry OBJECT-TYPE
    SYNTAX
               Ipv6RouteEntry
   MAX-ACCESS not-accessible
    STATUS
               obsolete
    DESCRIPTION
            "A routing entry.
            This entry is obsoleted by
            IP-FORWARD-MIB::inetCidrRouteEntry."
    INDEX
            { ipv6RouteDest,
              ipv6RoutePfxLength,
              ipv6RouteIndex }
    ::= { ipv6RouteTable 1 }
Ipv6RouteEntry ::= SEQUENCE {
        ipv6RouteDest
                                Ipv6Address,
        ipv6RoutePfxLength
                                INTEGER,
        ipv6RouteIndex
                                Unsigned32,
        ipv6RouteIfIndex
                                Ipv6IfIndex0rZero,
        ipv6RouteNextHop
                                Ipv6Address,
                                INTEGER,
        ipv6RouteType
        ipv6RouteProtocol
                                INTEGER,
        ipv6RoutePolicy
                                Integer32,
        ipv6RouteAge
                                Unsigned32,
        ipv6RouteNextHopRDI
                                Unsigned32,
        ipv6RouteMetric
                                Unsigned32,
        ipv6RouteWeight
                                Unsigned32,
        ipv6RouteInfo
                                RowPointer,
        ipv6RouteValid
                                TruthValue
    }
ipv6RouteDest OBJECT-TYPE
    SYNTAX
               Ipv6Address
    MAX-ACCESS not-accessible
    STATUS
               obsolete
    DESCRIPTION
```

```
"The destination IPv6 address of this route.
     This object may not take a Multicast address
     value.
      This object is obsoleted by IP-FORWARD-MIB::inetCidrRouteDest."
    ::= { ipv6RouteEntry 1 }
ipv6RoutePfxLength OBJECT-TYPE
    SYNTAX
             INTEGER(0..128)
              "bits"
    UNITS
   MAX-ACCESS not-accessible
    STATUS
              obsolete
    DESCRIPTION
      "Indicates the prefix length of the destination
     address.
     This object is obsoleted by IP-FORWARD-MIB::inetCidrRoutePfxLen."
    ::= { ipv6RouteEntry 2 }
ipv6RouteIndex OBJECT-TYPE
    SYNTAX
            Unsigned32
   MAX-ACCESS not-accessible
   STATUS
           obsolete
   DESCRIPTION
      "The value which uniquely identifies the route
      among the routes to the same network layer
      destination. The way this value is chosen is
      implementation specific but it must be unique for
      ipv6RouteDest/ipv6RoutePfxLength pair and remain
      constant for the life of the route.
     This object is obsoleted by IP-FORWARD-MIB::inetCidrRoutePolicy."
    ::= { ipv6RouteEntry 3 }
ipv6RouteIfIndex OBJECT-TYPE
    SYNTAX
              Ipv6IfIndex0rZero
   MAX-ACCESS read-only
    STATUS
            obsolete
    DESCRIPTION
      "The index value which uniquely identifies the local
      interface through which the next hop of this
      route should be reached. The interface identified
     by a particular value of this index is the same
      interface as identified by the same value of
      ipv6IfIndex. For routes of the discard type this
```

This object is obsoleted by

value can be zero.

```
IP-FORWARD-MIB::inetCidrRouteIfIndex."
   ::= { ipv6RouteEntry 4 }
ipv6RouteNextHop OBJECT-TYPE
   SYNTAX Ipv6Address
   MAX-ACCESS read-only
   STATUS obsolete
   DESCRIPTION
     "On remote routes, the address of the next
     system en route; otherwise, ::0
     string representation).
     This object is obsoleted by
     IP-FORWARD-MIB::inetCidrRouteNextHop."
   ::= { ipv6RouteEntry 5 }
ipv6RouteType OBJECT-TYPE
   SYNTAX INTEGER {
      other(1), -- none of the following
                   -- an route indicating that
                   -- packets to destinations
                   -- matching this route are
                   -- to be discarded
      discard(2),
                   -- route to directly
      local(3),
                   -- connected (sub-)network
                   -- route to a remote
      remote(4) -- destination
   }
   MAX-ACCESS read-only
   STATUS
          obsolete
   DESCRIPTION
      "The type of route. Note that 'local(3)' refers
      to a route for which the next hop is the final
      destination; 'remote(4)' refers to a route for
      which the next hop is not the final
      destination; 'discard(2)' refers to a route
      indicating that packets to destinations matching
      this route are to be discarded (sometimes called
      black-hole route).
```

This object is obsoleted by IP-FORWARD-MIB::inetCidrRouteType."

::= { ipv6RouteEntry 6 }

```
ipv6RouteProtocol OBJECT-TYPE
   SYNTAX INTEGER {
     other(1), -- none of the following
                 -- non-protocol information,
                 -- e.g., manually configured
      local(2), -- entries
      netmgmt(3), -- static route
                 -- obtained via Neighbor
                 -- Discovery protocol,
                 -- e.g., result of Redirect
      ndisc(4),
                 -- the following are all
                 -- dynamic routing protocols
      rip(5),
                 -- RIPng
     ospf(6),
                 -- Open Shortest Path First
     bgp(7),
                 -- Border Gateway Protocol
     idrp(8),
                 -- InterDomain Routing Protocol
      igrp(9)
                 -- InterGateway Routing Protocol
   MAX-ACCESS read-only
    STATUS
              obsolete
    DESCRIPTION
      "The routing mechanism via which this route was
     learned.
     This object is obsoleted by IP-FORWARD-MIB::inetCidrRouteProto."
    ::= { ipv6RouteEntry 7 }
ipv6RoutePolicy OBJECT-TYPE
    SYNTAX Integer32
   MAX-ACCESS read-only
              obsolete
    STATUS
    DESCRIPTION
    "The general set of conditions that would cause the
    selection of one multipath route (set of next hops
    for a given destination) is referred to as 'policy'.
    Unless the mechanism indicated by ipv6RouteProtocol
    specified otherwise, the policy specifier is the
    8-bit Traffic Class field of the IPv6 packet header
    that is zero extended at the left to a 32-bit value.
    Protocols defining 'policy' otherwise must either
    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.
    This object is obsoleted by IP-FORWARD-MIB::inetCidrRoutePolicy."
    ::= { ipv6RouteEntry 8 }
ipv6RouteAge OBJECT-TYPE
    SYNTAX
            Unsigned32
              "seconds"
    UNITS
    MAX-ACCESS read-only
    STATUS
               obsolete
    DESCRIPTION
       "The number of seconds since this route was last
      updated or otherwise determined to be correct.
      Note that no semantics of `too old' can be implied
      except through knowledge of the routing protocol
      by which the route was learned.
      This object is obsoleted by IP-FORWARD-MIB::inetCidrRouteAge."
    ::= { ipv6RouteEntry 9 }
ipv6RouteNextHopRDI OBJECT-TYPE
    SYNTAX
              Unsigned32
    MAX-ACCESS read-only
    STATUS
              obsolete
    DESCRIPTION
       "The Routing Domain ID of the Next Hop.
      The semantics of this object are determined by
      the routing-protocol specified in the route's
       ipv6RouteProtocol value. When this object is
      unknown or not relevant its value should be set
      to zero.
      This object is obsolete, and has no replacement.
      The Routing Domain ID concept did not catch on."
    ::= { ipv6RouteEntry 10 }
ipv6RouteMetric OBJECT-TYPE
    SYNTAX
             Unsigned32
   MAX-ACCESS read-only
    STATUS
              obsolete
    DESCRIPTION
       "The routing metric for this route. The
      semantics of this metric are determined by the
      routing protocol specified in the route's
       ipv6RouteProtocol value. When this is unknown
      or not relevant to the protocol indicated by
      ipv6RouteProtocol, the object value should be
```

set to its maximum value (4,294,967,295).

```
This object is obsoleted by
      IP-FORWARD-MIB::inetCidrRouteMetric1."
    ::= { ipv6RouteEntry 11 }
ipv6RouteWeight OBJECT-TYPE
    SYNTAX
             Unsigned32
   MAX-ACCESS read-only
   STATUS
              obsolete
    DESCRIPTION
       "The system internal weight value for this route.
      The semantics of this value are determined by
      the implementation specific rules. Generally,
      within routes with the same ipv6RoutePolicy value,
      the lower the weight value the more preferred is
      the route.
      This object is obsoleted, and has not been replaced."
    ::= { ipv6RouteEntry 12 }
ipv6RouteInfo OBJECT-TYPE
    SYNTAX
           RowPointer
   MAX-ACCESS read-only
   STATUS obsolete
    DESCRIPTION
       "A reference to MIB definitions specific to the
      particular routing protocol which is responsible
      for this route, as determined by the value
       specified in the route's ipv6RouteProto value.
      If this information is not present, its value
       should be set to the OBJECT ID { 0 0 },
      which is a syntactically valid object identifier,
      and any implementation conforming to ASN.1
      and the Basic Encoding Rules must be able to
      generate and recognize this value.
      This object is obsoleted, and has not been replaced."
    ::= { ipv6RouteEntry 13 }
ipv6RouteValid OBJECT-TYPE
              TruthValue
    SYNTAX
   MAX-ACCESS read-write
   STATUS
           obsolete
    DESCRIPTION
       "Setting this object to the value 'false(2)' has
      the effect of invalidating the corresponding entry
      in the ipv6RouteTable 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 examination of the relevant ipv6RouteValid object.

This object is obsoleted by IP-FORWARD-MIB::inetCidrRouteStatus."
```

```
This object is obsoleted by
IP-FORWARD-MIB::inetCidrRouteStatus."
DEFVAL { true }
::= { ipv6RouteEntry 14 }
-- IPv6 Address Translation table
```

ipv6NetToMediaTable OBJECT-TYPE

SYNTAX SEQUENCE OF Ipv6NetToMediaEntry

MAX-ACCESS not-accessible

STATUS obsolete

DESCRIPTION

"The IPv6 Address Translation table used for mapping from IPv6 addresses to physical addresses.

The IPv6 address translation table contain the Ipv6Address to `physical' address equivalencies. Some interfaces do not use translation tables for determining address equivalencies; if all interfaces are of this type, then the Address Translation table is empty, i.e., has zero entries.

```
This table is obsoleted by IP-MIB::ipNetToPhysicalTable."
::= { ipv6MIB0bjects 12 }
```

```
ipv6NetToMediaEntry OBJECT-TYPE
SYNTAX Ipv6NetToMediaEntry
MAX-ACCESS not-accessible
STATUS obsolete
DESCRIPTION
```

"Each entry contains one IPv6 address to `physical' address equivalence.

```
Ipv6NetToMediaEntry ::= SEQUENCE {
        ipv6NetToMediaNetAddress
            Ipv6Address,
        ipv6NetToMediaPhysAddress
            PhysAddress,
        ipv6NetToMediaType
            INTEGER,
        ipv6IfNetToMediaState
            INTEGER,
        ipv6IfNetToMediaLastUpdated
            TimeStamp,
        ipv6NetToMediaValid
            TruthValue
    }
ipv6NetToMediaNetAddress OBJECT-TYPE
    SYNTAX
              Ipv6Address
   MAX-ACCESS not-accessible
    STATUS
             obsolete
    DESCRIPTION
       "The IPv6 Address corresponding to
      the media-dependent `physical' address.
      This object is obsoleted by IP-MIB::ipNetToPhysicalNetAddress."
    ::= { ipv6NetToMediaEntry 1 }
ipv6NetToMediaPhysAddress OBJECT-TYPE
             PhysAddress
    SYNTAX
   MAX-ACCESS read-only
    STATUS
           obsolete
    DESCRIPTION
      "The media-dependent `physical' address.
     This object is obsoleted by IP-MIB::ipNetToPhysicalPhysAddress."
    ::= { ipv6NetToMediaEntry 2 }
ipv6NetToMediaType OBJECT-TYPE
    SYNTAX
              INTEGER {
                other(1), -- none of the following
                dynamic(2), -- dynamically resolved
                static(3), -- statically configured
                local(4)
                            -- local interface
               }
    MAX-ACCESS read-only
    STATUS
              obsolete
    DESCRIPTION
            "The type of the mapping. The 'dynamic(2)' type
            indicates that the IPv6 address to physical
```

```
addresses mapping has been dynamically
             resolved using the IPv6 Neighbor Discovery
            protocol. The static(3)' types indicates that
             the mapping has been statically configured.
             The local(4) indicates that the mapping is
             provided for an entity's own interface address.
             This object is obsoleted by IP-MIB::ipNetToPhysicalType."
     ::= { ipv6NetToMediaEntry 3 }
ipv6IfNetToMediaState OBJECT-TYPE
               INTEGER {
   SYNTAX
             reachable(1), -- confirmed reachability
             stale(2), -- unconfirmed reachability
            delay(3),
                         -- waiting for reachability
                          -- confirmation before entering
                          -- the probe state
            probe(4),
                        -- actively probing
             invalid(5),
                          -- an invalidated mapping
            unknown(6)
                          -- state can not be determined
                          -- for some reason.
   MAX-ACCESS read-only
    STATUS
               obsolete
   DESCRIPTION
        "The Neighbor Unreachability Detection [8] state
       for the interface when the address mapping in
       this entry is used.
       This object is obsoleted by IP-MIB::ipNetToPhysicalState."
    ::= { ipv6NetToMediaEntry 4 }
ipv6IfNetToMediaLastUpdated OBJECT-TYPE
    SYNTAX
               TimeStamp
   MAX-ACCESS read-only
    STATUS
               obsolete
    DESCRIPTION
        "The value of sysUpTime at the time this entry
       was last updated. If this entry was updated prior
       to the last re-initialization of the local network
       management subsystem, then this object contains
       a zero value.
```

```
This object is obsoleted by IP-MIB::ipNetToPhysicalLastUpdated."
    ::= { ipv6NetToMediaEntry 5 }
 ipv6NetToMediaValid OBJECT-TYPE
     SYNTAX
              TruthValue
     MAX-ACCESS read-write
     STATUS obsolete
     DESCRIPTION
      "Setting this object to the value 'false(2)' has
     the effect of invalidating the corresponding entry
     in the ipv6NetToMediaTable. That is, it effectively
     disassociates the interface identified with said
     entry from the mapping identified with said entry.
     It is an implementation-specific matter as to
     whether the agent removes an invalidated entry
     from the table. Accordingly, management stations
     must be prepared to receive tabular information
     from agents that corresponds to entries not
     currently in use. Proper interpretation of such
     entries requires examination of the relevant
     ipv6NetToMediaValid object.
     This object is obsoleted by IP-MIB::ipNetToPhysicalRowStatus."
     DEFVAL { true }
     ::= { ipv6NetToMediaEntry 6 }
-- definition of IPv6-related notifications.
-- Note that we need ipv6NotificationPrefix with the 0
-- sub-identifier to make this MIB to translate to
-- an SNMPv1 format in a reversible way. For example
-- it is needed for proxies that convert SNMPv1 traps
-- to SNMPv2 notifications without MIB knowledge.
ipv6Notifications
                       OBJECT IDENTIFIER
     ::= { ipv6MIB 2 }
ipv6NotificationPrefix OBJECT IDENTIFIER
     ::= { ipv6Notifications 0 }
ipv6IfStateChange NOTIFICATION-TYPE
    OBJECTS {
              ipv6IfDescr,
             ipv6IfOperStatus -- the new state of the If.
                        obsolete
     STATUS
     DESCRIPTION
        "An ipv6IfStateChange notification signifies
```

that there has been a change in the state of an ipv6 interface. This notification should

```
be generated when the interface's operational
        status transitions to or from the up(1) state.
        This object is obsoleted by IF-MIB::linkUp
        and IF-MIB::linkDown notifications."
     ::= { ipv6NotificationPrefix 1 }
-- conformance information
ipv6Conformance OBJECT IDENTIFIER ::= { ipv6MIB 3 }
ipv6Compliances OBJECT IDENTIFIER ::= { ipv6Conformance 1 }
ipv6Groups
               OBJECT IDENTIFIER ::= { ipv6Conformance 2 }
-- compliance statements
ipv6Compliance MODULE-COMPLIANCE
    STATUS obsolete
    DESCRIPTION
      "The compliance statement for SNMPv2 entities which
     implement ipv6 MIB.
     This compliance statement is obsoleted by
     IP-MIB::ipMIBCompliance2."
    MODULE -- this module
        MANDATORY-GROUPS { ipv6GeneralGroup,
                           ipv6NotificationGroup }
                   ipv6Forwarding
          OBJECT
            MIN-ACCESS read-only
            DESCRIPTION
               "An agent is not required to provide write
                access to this object"
                    ipv6DefaultHopLimit
          OBJECT
            MIN-ACCESS read-only
            DESCRIPTION
               "An agent is not required to provide write
                access to this object"
                   ipv6IfDescr
          OBJECT
            MIN-ACCESS read-only
            DESCRIPTION
               "An agent is not required to provide write
                access to this object"
          OBJECT
                   ipv6IfIdentifier
            MIN-ACCESS read-only
            DESCRIPTION
               "An agent is not required to provide write
               access to this object"
```

OBJECT ipv6IfIdentifierLength

MIN-ACCESS read-only

```
DESCRIPTION
               "An agent is not required to provide write
                access to this object"
          OBJECT
                    ipv6IfAdminStatus
            MIN-ACCESS read-only
            DESCRIPTION
               "An agent is not required to provide write
                access to this object"
                    ipv6RouteValid
          OBJECT
            MIN-ACCESS read-only
            DESCRIPTION
               "An agent is not required to provide write
                access to this object"
                    ipv6NetToMediaValid
          OBJECT
            MIN-ACCESS read-only
            DESCRIPTION
               "An agent is not required to provide write
                access to this object"
    ::= { ipv6Compliances 1 }
ipv6GeneralGroup OBJECT-GROUP
    OBJECTS { ipv6Forwarding,
              ipv6DefaultHopLimit,
              ipv6Interfaces,
              ipv6IfTableLastChange,
              ipv6IfDescr,
              ipv6IfLowerLayer,
              ipv6IfEffectiveMtu,
              ipv6IfReasmMaxSize,
              ipv6IfIdentifier,
              ipv6IfIdentifierLength,
              ipv6IfPhysicalAddress,
              ipv6IfAdminStatus,
              ipv6If0perStatus,
              ipv6IfLastChange,
              ipv6IfStatsInReceives,
              ipv6IfStatsInHdrErrors,
              ipv6IfStatsInTooBigErrors,
              ipv6IfStatsInNoRoutes,
              ipv6IfStatsInAddrErrors,
              ipv6IfStatsInUnknownProtos,
              ipv6IfStatsInTruncatedPkts,
              ipv6IfStatsInDiscards,
              ipv6IfStatsInDelivers,
              ipv6IfStatsOutForwDatagrams,
              ipv6IfStatsOutRequests,
```

```
ipv6IfStatsOutDiscards,
              ipv6IfStatsOutFragOKs,
              ipv6IfStatsOutFragFails,
              ipv6IfStatsOutFragCreates,
              ipv6IfStatsReasmReqds,
              ipv6IfStatsReasm0Ks,
              ipv6IfStatsReasmFails,
              ipv6IfStatsInMcastPkts,
              ipv6IfStatsOutMcastPkts,
              ipv6AddrPrefixOnLinkFlag,
              ipv6AddrPrefixAutonomousFlag,
              ipv6AddrPrefixAdvPreferredLifetime,
              ipv6AddrPrefixAdvValidLifetime,
              ipv6AddrPfxLength,
              ipv6AddrType,
              ipv6AddrAnycastFlag,
              ipv6AddrStatus,
              ipv6RouteNumber,
              ipv6DiscardedRoutes,
              ipv6RouteIfIndex,
              ipv6RouteNextHop,
              ipv6RouteType,
              ipv6RouteProtocol,
              ipv6RoutePolicy,
              ipv6RouteAge,
              ipv6RouteNextHopRDI,
              ipv6RouteMetric,
              ipv6RouteWeight,
              ipv6RouteInfo,
              ipv6RouteValid,
              ipv6NetToMediaPhysAddress,
              ipv6NetToMediaType,
              ipv6IfNetToMediaState,
              ipv6IfNetToMediaLastUpdated,
              ipv6NetToMediaValid }
    STATUS
              obsolete
    DESCRIPTION
         "The IPv6 group of objects providing for basic
          management of IPv6 entities.
          This group is obsoleted by various groups in
          IP-MIB."
    ::= { ipv6Groups 1 }
ipv6NotificationGroup NOTIFICATION-GROUP
    NOTIFICATIONS { ipv6IfStateChange }
    STATUS
              obsolete
    DESCRIPTION
```

```
"The notifica
to implement
This group i
IF-MIB::link
```

"The notification that an IPv6 entity is required to implement.

This group is obsoleted by
IF-MIB::linkUpDownNotificationsGroup."
::= { ipv6Groups 2 }

END

4. Historic IPV6-ICMP-MIB

IPV6-ICMP-MIB DEFINITIONS ::= BEGIN

IMPORTS

MODULE-IDENTITY, OBJECT-TYPE,

Counter32, mib-2 FROM SNMPv2-SMI MODULE-COMPLIANCE, OBJECT-GROUP FROM SNMPv2-CONF ipv6IfEntry FROM IPV6-MIB;

ipv6IcmpMIB MODULE-IDENTITY

LAST-UPDATED "201505282112Z"

ORGANIZATION "IETF IPv6 Working Group"

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DESCRIPTION

"The obsolete MIB module for entities implementing

the ICMPv6. Use the IP-MIB instead."

REVISION "201505282112Z"

DESCRIPTION

"Obsoleting this MIB module; it has been replaced by

```
the revised IP-MIB (RFC4293)."
   REVISION "9801082155Z"
   DESCRIPTION
     "First revision, published as RFC2466"
    ::= { mib-2 56 }
-- the ICMPv6 group
ipv6IcmpMIBObjects OBJECT IDENTIFIER ::= { ipv6IcmpMIB 1 }
-- Per-interface ICMPv6 statistics table
ipv6IfIcmpTable OBJECT-TYPE
              SEQUENCE OF Ipv6IfIcmpEntry
   SYNTAX
   MAX-ACCESS not-accessible
   STATUS
              obsolete
   DESCRIPTION
    "IPv6 ICMP statistics. This table contains statistics
    of ICMPv6 messages that are received and sourced by
    the entity.
    This table is obsolete, because systems were found
    not to maintain these statistics per-interface."
    ::= { ipv6IcmpMIBObjects 1 }
ipv6IfIcmpEntry OBJECT-TYPE
   SYNTAX
              Ipv6IfIcmpEntry
   MAX-ACCESS not-accessible
   STATUS
              obsolete
   DESCRIPTION
    "An ICMPv6 statistics entry containing
    objects at a particular IPv6 interface.
    Note that a receiving interface is
    the interface to which a given ICMPv6 message
    is addressed which may not be necessarily
    the input interface for the message.
    Similarly, the sending interface is
    the interface that sources a given
    ICMP message which is usually but not
    necessarily the output interface for the message.
    This table is obsolete, because systems were found
    not to maintain these statistics per-interface."
   AUGMENTS { ipv6IfEntry }
    ::= { ipv6IfIcmpTable 1 }
```

Fenner

```
Ipv6IfIcmpEntry ::= SEQUENCE {
       ipv6IfIcmpInMsgs
             Counter32
       ipv6IfIcmpInErrors
             Counter32
       ipv6IfIcmpInDestUnreachs
             Counter32
        ipv6IfIcmpInAdminProhibs
             Counter32
        ipv6IfIcmpInTimeExcds
             Counter32
        ipv6IfIcmpInParmProblems
             Counter32
        ipv6IfIcmpInPktTooBigs
             Counter32
        ipv6IfIcmpInEchos
             Counter32
        ipv6IfIcmpInEchoReplies
             Counter32
        ipv6IfIcmpInRouterSolicits
             Counter32
        ipv6IfIcmpInRouterAdvertisements
             Counter32
        ipv6IfIcmpInNeighborSolicits
             Counter32
       ipv6IfIcmpInNeighborAdvertisements
             Counter32
       ipv6IfIcmpInRedirects
             Counter32
        ipv6IfIcmpInGroupMembQueries
             Counter32
       ipv6IfIcmpInGroupMembResponses
             Counter32
       ipv6IfIcmpInGroupMembReductions
             Counter32
        ipv6IfIcmpOutMsgs
             Counter32
        ipv6IfIcmpOutErrors
             Counter32
        ipv6IfIcmpOutDestUnreachs
             Counter32
        ipv6IfIcmpOutAdminProhibs
             Counter32
        ipv6IfIcmpOutTimeExcds
             Counter32
        ipv6IfIcmpOutParmProblems
             Counter32
        ipv6IfIcmpOutPktTooBigs
```

```
Counter32
        ipv6IfIcmpOutEchos
             Counter32
        ipv6IfIcmpOutEchoReplies
             Counter32
        ipv6IfIcmpOutRouterSolicits
             Counter32
        ipv6IfIcmpOutRouterAdvertisements
              Counter32
        ipv6IfIcmpOutNeighborSolicits
              Counter32
        ipv6IfIcmpOutNeighborAdvertisements
              Counter32
        ipv6IfIcmpOutRedirects
             Counter32
        ipv6IfIcmpOutGroupMembQueries
              Counter32
        ipv6IfIcmpOutGroupMembResponses
             Counter32
        ipv6IfIcmpOutGroupMembReductions
             Counter32
   }
ipv6IfIcmpInMsgs OBJECT-TYPE
   SYNTAX
              Counter32
   MAX-ACCESS read-only
              obsolete
   STATUS
   DESCRIPTION
    "The total number of ICMP messages received
    by the interface which includes all those
    counted by ipv6IfIcmpInErrors. Note that this
    interface is the interface to which the
    ICMP messages were addressed which may not be
    necessarily the input interface for the messages.
    This object has been obsoleted by IP-MIB::icmpStatsInMsgs."
    ::= { ipv6IfIcmpEntry 1 }
ipv6IfIcmpInErrors OBJECT-TYPE
   SYNTAX
           Counter32
   MAX-ACCESS read-only
   STATUS
              obsolete
   DESCRIPTION
    "The number of ICMP messages which the interface
    received but determined as having ICMP-specific
    errors (bad ICMP checksums, bad length, etc.).
    This object has been obsoleted by IP-MIB::icmpStatsInErrors."
```

```
::= { ipv6IfIcmpEntry 2 }
ipv6IfIcmpInDestUnreachs OBJECT-TYPE
   SYNTAX
              Counter32
   MAX-ACCESS read-only
   STATUS obsolete
   DESCRIPTION
    "The number of ICMP Destination Unreachable
    messages received by the interface.
    This object has been obsoleted by IP-MIB::icmpMsgStatsInPkts
    in the row corresponding to this message type."
   ::= { ipv6IfIcmpEntry 3 }
ipv6IfIcmpInAdminProhibs OBJECT-TYPE
   SYNTAX
            Counter32
   MAX-ACCESS read-only
   STATUS
              obsolete
   DESCRIPTION
    "The number of ICMP destination
    unreachable/communication administratively
    prohibited messages received by the interface.
    This object has been obsoleted by IP-MIB::icmpMsgStatsInPkts
    in the row corresponding to this message type."
   ::= { ipv6IfIcmpEntry 4 }
ipv6IfIcmpInTimeExcds OBJECT-TYPE
           Counter32
   SYNTAX
   MAX-ACCESS read-only
   STATUS obsolete
   DESCRIPTION
    "The number of ICMP Time Exceeded messages
     received by the interface.
     This object has been obsoleted by IP-MIB::icmpMsqStatsInPkts
     in the row corresponding to this message type."
   ::= { ipv6IfIcmpEntry 5 }
ipv6IfIcmpInParmProblems OBJECT-TYPE
   SYNTAX
            Counter32
   MAX-ACCESS read-only
   STATUS
           obsolete
   DESCRIPTION
    "The number of ICMP Parameter Problem messages
     received by the interface.
     This object has been obsoleted by IP-MIB::icmpMsqStatsInPkts
```

```
in the row corresponding to this message type."
   ::= { ipv6IfIcmpEntry 6 }
ipv6IfIcmpInPktTooBigs OBJECT-TYPE
   SYNTAX Counter32
   MAX-ACCESS read-only
   STATUS obsolete
   DESCRIPTION
    "The number of ICMP Packet Too Big messages
    received by the interface.
    This object has been obsoleted by IP-MIB::icmpMsgStatsInPkts
    in the row corresponding to this message type."
   ::= { ipv6IfIcmpEntry 7 }
ipv6IfIcmpInEchos OBJECT-TYPE
   SYNTAX Counter32
   MAX-ACCESS read-only
   STATUS obsolete
   DESCRIPTION
    "The number of ICMP Echo (request) messages
     received by the interface.
     This object has been obsoleted by IP-MIB::icmpMsgStatsInPkts
     in the row corresponding to this message type."
   ::= { ipv6IfIcmpEntry 8 }
ipv6IfIcmpInEchoReplies OBJECT-TYPE
   SYNTAX Counter32
   MAX-ACCESS read-only
   STATUS obsolete
   DESCRIPTION
    "The number of ICMP Echo Reply messages received
    by the interface.
    This object has been obsoleted by IP-MIB::icmpMsqStatsInPkts
    in the row corresponding to this message type."
   ::= { ipv6IfIcmpEntry 9 }
ipv6IfIcmpInRouterSolicits OBJECT-TYPE
   SYNTAX Counter32
   MAX-ACCESS read-only
   STATUS
           obsolete
   DESCRIPTION
    "The number of ICMP Router Solicit messages
     received by the interface.
     This object has been obsoleted by IP-MIB::icmpMsqStatsInPkts
```

Fenner

```
in the row corresponding to this message type."
   ::= { ipv6IfIcmpEntry 10 }
ipv6IfIcmpInRouterAdvertisements OBJECT-TYPE
   SYNTAX Counter32
   MAX-ACCESS read-only
   STATUS obsolete
   DESCRIPTION
    "The number of ICMP Router Advertisement messages
    received by the interface.
    This object has been obsoleted by IP-MIB::icmpMsgStatsInPkts
    in the row corresponding to this message type."
   ::= { ipv6IfIcmpEntry 11 }
ipv6IfIcmpInNeighborSolicits OBJECT-TYPE
           Counter32
   SYNTAX
   MAX-ACCESS read-only
   STATUS obsolete
   DESCRIPTION
    "The number of ICMP Neighbor Solicit messages
     received by the interface.
     This object has been obsoleted by IP-MIB::icmpMsgStatsInPkts
     in the row corresponding to this message type."
   ::= { ipv6IfIcmpEntry 12 }
ipv6IfIcmpInNeighborAdvertisements OBJECT-TYPE
   SYNTAX Counter32
   MAX-ACCESS read-only
   STATUS obsolete
   DESCRIPTION
    "The number of ICMP Neighbor Advertisement
    messages received by the interface.
    This object has been obsoleted by IP-MIB::icmpMsqStatsInPkts
    in the row corresponding to this message type."
   ::= { ipv6IfIcmpEntry 13 }
ipv6IfIcmpInRedirects OBJECT-TYPE
   SYNTAX Counter32
   MAX-ACCESS read-only
   STATUS obsolete
   DESCRIPTION
    "The number of Redirect messages received
    by the interface.
    This object has been obsoleted by IP-MIB::icmpMsqStatsInPkts
```

```
in the row corresponding to this message type."
   ::= { ipv6IfIcmpEntry 14 }
ipv6IfIcmpInGroupMembQueries OBJECT-TYPE
   SYNTAX
              Counter32
   MAX-ACCESS read-only
   STATUS obsolete
   DESCRIPTION
    "The number of ICMPv6 Group Membership Query
    messages received by the interface.
    This object has been obsoleted by IP-MIB::icmpMsgStatsInPkts
    in the row corresponding to this message type."
   ::= { ipv6IfIcmpEntry 15}
ipv6IfIcmpInGroupMembResponses OBJECT-TYPE
              Counter32
   SYNTAX
   MAX-ACCESS read-only
   STATUS obsolete
   DESCRIPTION
    "The number of ICMPv6 Group Membership Response messages
    received by the interface.
    This object has been obsoleted by IP-MIB::icmpMsgStatsInPkts
    in the row corresponding to this message type."
   ::= { ipv6IfIcmpEntry 16}
 ipv6IfIcmpInGroupMembReductions OBJECT-TYPE
   SYNTAX
              Counter32
   MAX-ACCESS read-only
   STATUS obsolete
   DESCRIPTION
    "The number of ICMPv6 Group Membership Reduction messages
    received by the interface.
    This object has been obsoleted by IP-MIB::icmpMsqStatsInPkts
    in the row corresponding to this message type."
   ::= { ipv6IfIcmpEntry 17}
ipv6IfIcmpOutMsgs OBJECT-TYPE
   SYNTAX
            Counter32
   MAX-ACCESS read-only
   STATUS
           obsolete
   DESCRIPTION
    "The total number of ICMP messages which this
    interface attempted to send. Note that this counter
    includes all those counted by icmpOutErrors.
```

```
This object has been obsoleted by IP-MIB::icmpStatsOutMsgs."
   ::= { ipv6IfIcmpEntry 18 }
ipv6IfIcmpOutErrors OBJECT-TYPE
   SYNTAX
           Counter32
   MAX-ACCESS read-only
   STATUS obsolete
   DESCRIPTION
    "The number of ICMP messages which this interface did
    not send due to problems discovered within ICMP
    such as a lack of buffers. This value should not
    include errors discovered outside the ICMP layer
    such as the inability of IPv6 to route the resultant
    datagram. In some implementations there may be no
    types of error which contribute to this counter's
    value.
    This object has been obsoleted by IP-MIB::icmpStatsOutErrors."
    ::= { ipv6IfIcmpEntry 19 }
ipv6IfIcmpOutDestUnreachs OBJECT-TYPE
   SYNTAX
              Counter32
   MAX-ACCESS read-only
   STATUS
              obsolete
   DESCRIPTION
    "The number of ICMP Destination Unreachable
    messages sent by the interface.
    This object has been obsoleted by IP-MIB::icmpMsqStatsOutPkts
    in the row corresponding to this message type."
    ::= { ipv6IfIcmpEntry 20 }
ipv6IfIcmpOutAdminProhibs OBJECT-TYPE
   SYNTAX
              Counter32
   MAX-ACCESS read-only
           obsolete
   STATUS
   DESCRIPTION
     "Number of ICMP dest unreachable/communication
     administratively prohibited messages sent.
     This object has been obsoleted by IP-MIB::icmpMsgStatsOutPkts
     in the row corresponding to this message type."
   ::= { ipv6IfIcmpEntry 21 }
ipv6IfIcmpOutTimeExcds OBJECT-TYPE
   SYNTAX
              Counter32
   MAX-ACCESS read-only
```

Fenner

```
obsolete
   STATUS
   DESCRIPTION
    "The number of ICMP Time Exceeded messages sent
    by the interface.
    This object has been obsoleted by IP-MIB::icmpMsgStatsOutPkts
    in the row corresponding to this message type."
    ::= { ipv6IfIcmpEntry 22 }
ipv6IfIcmpOutParmProblems OBJECT-TYPE
   SYNTAX
              Counter32
   MAX-ACCESS read-only
   STATUS
            obsolete
   DESCRIPTION
    "The number of ICMP Parameter Problem messages
    sent by the interface.
    This object has been obsoleted by IP-MIB::icmpMsqStatsOutPkts
    in the row corresponding to this message type."
    ::= { ipv6IfIcmpEntry 23 }
ipv6IfIcmpOutPktTooBigs OBJECT-TYPE
   SYNTAX
              Counter32
   MAX-ACCESS read-only
   STATUS
           obsolete
   DESCRIPTION
    "The number of ICMP Packet Too Big messages sent
    by the interface.
    This object has been obsoleted by IP-MIB::icmpMsqStatsOutPkts
    in the row corresponding to this message type."
    ::= { ipv6IfIcmpEntry 24 }
ipv6IfIcmpOutEchos OBJECT-TYPE
   SYNTAX
              Counter32
   MAX-ACCESS read-only
              obsolete
   STATUS
    DESCRIPTION
    "The number of ICMP Echo (request) messages sent
    by the interface.
    This object has been obsoleted by IP-MIB::icmpMsgStatsOutPkts
    in the row corresponding to this message type."
    ::= { ipv6IfIcmpEntry 25 }
ipv6IfIcmpOutEchoReplies OBJECT-TYPE
   SYNTAX
              Counter32
   MAX-ACCESS read-only
```

```
STATUS obsolete
   DESCRIPTION
    "The number of ICMP Echo Reply messages sent
    by the interface.
    This object has been obsoleted by IP-MIB::icmpMsgStatsOutPkts
    in the row corresponding to this message type."
    ::= { ipv6IfIcmpEntry 26 }
ipv6IfIcmpOutRouterSolicits OBJECT-TYPE
   SYNTAX
              Counter32
   MAX-ACCESS read-only
           obsolete
   STATUS
   DESCRIPTION
    "The number of ICMP Router Solicitation messages
     sent by the interface.
     This object has been obsoleted by IP-MIB::icmpMsgStatsOutPkts
     in the row corresponding to this message type."
    ::= { ipv6IfIcmpEntry 27 }
ipv6IfIcmpOutRouterAdvertisements OBJECT-TYPE
   SYNTAX
              Counter32
   MAX-ACCESS read-only
   STATUS obsolete
    DESCRIPTION
    "The number of ICMP Router Advertisement messages
    sent by the interface.
    This object has been obsoleted by IP-MIB::icmpMsqStatsOutPkts
    in the row corresponding to this message type."
    ::= { ipv6IfIcmpEntry 28 }
ipv6IfIcmpOutNeighborSolicits OBJECT-TYPE
   SYNTAX
              Counter32
   MAX-ACCESS read-only
              obsolete
   STATUS
   DESCRIPTION
    "The number of ICMP Neighbor Solicitation
     messages sent by the interface.
     This object has been obsoleted by IP-MIB::icmpMsgStatsOutPkts
     in the row corresponding to this message type."
    ::= { ipv6IfIcmpEntry 29 }
ipv6IfIcmpOutNeighborAdvertisements OBJECT-TYPE
   SYNTAX
              Counter32
   MAX-ACCESS read-only
```

```
STATUS obsolete
   DESCRIPTION
    "The number of ICMP Neighbor Advertisement
    messages sent by the interface.
    This object has been obsoleted by IP-MIB::icmpMsgStatsOutPkts
    in the row corresponding to this message type."
   ::= { ipv6IfIcmpEntry 30 }
ipv6IfIcmpOutRedirects OBJECT-TYPE
   SYNTAX
           Counter32
   MAX-ACCESS read-only
   STATUS
           obsolete
   DESCRIPTION
    "The number of Redirect messages sent. For
    a host, this object will always be zero,
    since hosts do not send redirects.
    This object has been obsoleted by IP-MIB::icmpMsgStatsOutPkts
    in the row corresponding to this message type."
   ::= { ipv6IfIcmpEntry 31 }
ipv6IfIcmpOutGroupMembOueries OBJECT-TYPE
   SYNTAX
            Counter32
   MAX-ACCESS read-only
   STATUS
              obsolete
   DESCRIPTION
    "The number of ICMPv6 Group Membership Query
    messages sent.
    This object has been obsoleted by IP-MIB::icmpMsgStatsOutPkts
    in the row corresponding to this message type."
    ::= { ipv6IfIcmpEntry 32}
ipv6IfIcmpOutGroupMembResponses OBJECT-TYPE
   SYNTAX
              Counter32
   MAX-ACCESS read-only
   STATUS
              obsolete
   DESCRIPTION
    "The number of ICMPv6 Group Membership Response
    messages sent.
    This object has been obsoleted by IP-MIB::icmpMsgStatsOutPkts
    in the row corresponding to this message type."
    ::= { ipv6IfIcmpEntry 33}
ipv6IfIcmpOutGroupMembReductions OBJECT-TYPE
   SYNTAX
            Counter32
```

```
MAX-ACCESS read-only
    STATUS
               obsolete
    DESCRIPTION
      "The number of ICMPv6 Group Membership Reduction
      messages sent.
      This object has been obsoleted by IP-MIB::icmpMsqStatsOutPkts
      in the row corresponding to this message type."
     ::= { ipv6IfIcmpEntry 34}
-- conformance information
ipv6IcmpConformance OBJECT IDENTIFIER ::= { ipv6IcmpMIB 2 }
ipv6IcmpCompliances
       OBJECT IDENTIFIER ::= { ipv6IcmpConformance 1 }
ipv6IcmpGroups
        OBJECT IDENTIFIER ::= { ipv6IcmpConformance 2 }
-- compliance statements
ipv6IcmpCompliance MODULE-COMPLIANCE
   STATUS obsolete
   DESCRIPTION
      "The compliance statement for SNMPv2 entities which
      implement ICMPv6.
      This compliance statement has been obsoleted by
      IP-MIB::ipMIBCompliance2."
   MODULE -- this module
       MANDATORY-GROUPS { ipv6IcmpGroup }
    ::= { ipv6IcmpCompliances 1 }
ipv6IcmpGroup OBJECT-GROUP
   OBJECTS
             {
                ipv6IfIcmpInMsgs,
                ipv6IfIcmpInErrors,
                ipv6IfIcmpInDestUnreachs,
                ipv6IfIcmpInAdminProhibs,
                ipv6IfIcmpInTimeExcds,
                ipv6IfIcmpInParmProblems,
                ipv6IfIcmpInPktTooBigs,
                ipv6IfIcmpInEchos,
                ipv6IfIcmpInEchoReplies,
                ipv6IfIcmpInRouterSolicits,
                ipv6IfIcmpInRouterAdvertisements,
                ipv6IfIcmpInNeighborSolicits,
                ipv6IfIcmpInNeighborAdvertisements,
```

```
Internet-Draft
                           ipv6-mibs-obsolete
                   ipv6IfIcmpInRedirects,
                   ipv6IfIcmpInGroupMembQueries,
                   ipv6IfIcmpInGroupMembResponses,
                   ipv6IfIcmpInGroupMembReductions,
                   ipv6IfIcmpOutMsgs,
                   ipv6IfIcmpOutErrors,
                   ipv6IfIcmpOutDestUnreachs,
                   ipv6IfIcmpOutAdminProhibs,
                   ipv6IfIcmpOutTimeExcds,
                   ipv6IfIcmpOutParmProblems,
                   ipv6IfIcmpOutPktTooBigs,
                   ipv6IfIcmpOutEchos,
                   ipv6IfIcmpOutEchoReplies,
                   ipv6IfIcmpOutRouterSolicits,
                   ipv6IfIcmpOutRouterAdvertisements,
                   ipv6IfIcmpOutNeighborSolicits,
                   ipv6IfIcmpOutNeighborAdvertisements,
                   ipv6IfIcmpOutRedirects,
                   ipv6IfIcmpOutGroupMembQueries,
                   ipv6IfIcmpOutGroupMembResponses,
                   ipv6IfIcmpOutGroupMembReductions
                 }
                 obsolete
       STATUS
       DESCRIPTION
            "The ICMPv6 group of objects providing information
             specific to ICMPv6.
             This group has been obsoleted by IP-MIB::icmpStatsGroup."
       ::= { ipv6IcmpGroups 1 }
    END
```

5. Historic IPV6-UDP-MIB

IPV6-UDP-MIB DEFINITIONS ::= BEGIN

```
IMPORTS
   MODULE-COMPLIANCE, OBJECT-GROUP
                                        FROM SNMPv2-CONF
   MODULE-IDENTITY, OBJECT-TYPE,
                                        FROM SNMPv2-SMI
   mib-2, experimental
   Ipv6Address, Ipv6IfIndexOrZero
                                        FROM IPV6-TC;
ipv6UdpMIB MODULE-IDENTITY
   LAST-UPDATED "201505282112Z"
   ORGANIZATION "IETF IPv6 MIB Working Group"
   CONTACT-INFO
                        Mike Daniele
```

```
Postal: Compaq Computer Corporation
                        110 Spitbrook Rd
                        Nashua, NH 03062.
                        US
                Phone: +1 603 884 1423
                Email: daniele@zk3.dec.com"
   DESCRIPTION
        "The obsolete MIB module for entities implementing UDP
        over IPv6. Use the UDP-MIB instead."
   REVISION "201505282112Z"
   DESCRIPTION
        "Obsoleting this MIB module; it has been replaced by
        the revised UDP-MIB (RFC4113)."
   REVISION "9801290000Z"
   DESCRIPTION
        "First revision, published as <a href="RFC2454">RFC2454</a>"
   ::= { experimental 87 }
-- objects specific to UDP for IPv6
         OBJECT IDENTIFIER ::= { mib-2 7 }
udp
-- the UDP over IPv6 Listener table
-- This table contains information about this entity's
-- UDP/IPv6 endpoints. Only endpoints utilizing IPv6 addresses
-- are contained in this table. This entity's UDP/IPv4 endpoints
-- are contained in udpTable.
ipv6UdpTable OBJECT-TYPE
               SEQUENCE OF Ipv6UdpEntry
   SYNTAX
   MAX-ACCESS not-accessible
   STATUS
               obsolete
   DESCRIPTION
        "A table containing UDP listener information for
        UDP/IPv6 endpoints.
         This table is obsoleted by UDP-MIB::udpEndpointTable."
   ::= { udp 6 }
ipv6UdpEntry OBJECT-TYPE
   SYNTAX
               Ipv6UdpEntry
   MAX-ACCESS not-accessible
               obsolete
   STATUS
   DESCRIPTION
        "Information about a particular current UDP listener.
```

Note that conceptual rows in this table require an additional index object compared to udpTable, since IPv6 addresses are not guaranteed to be unique on the managed node.

```
This entry is obsoleted by UDP-MIB::udpEndpointTable."
   INDEX { ipv6UdpLocalAddress,
             ipv6UdpLocalPort,
             ipv6UdpIfIndex }
   ::= { ipv6UdpTable 1 }
Ipv6UdpEntry ::= SEQUENCE {
   ipv6UdpLocalAddress
                          Ipv6Address,
   ipv6UdpLocalPort
                          INTEGER,
                         Ipv6IfIndexOrZero }
   ipv6UdpIfIndex
ipv6UdpLocalAddress OBJECT-TYPE
   SYNTAX
               Ipv6Address
  MAX-ACCESS not-accessible
   STATUS
               obsolete
  DESCRIPTION
        "The local IPv6 address for this UDP listener.
         In the case of a UDP listener which is willing
         to accept datagrams for any IPv6 address
         associated with the managed node, the value ::0
         is used.
         This object is obsoleted by UDP-MIB::udpEndpointLocalAddress."
   ::= { ipv6UdpEntry 1 }
ipv6UdpLocalPort OBJECT-TYPE
    SYNTAX
               INTEGER (0..65535)
   MAX-ACCESS not-accessible
    STATUS
           obsolete
    DESCRIPTION
        "The local port number for this UDP listener.
        This object is obsoleted by UDP-MIB::udpEndpointLocalPort."
    ::= { ipv6UdpEntry 2 }
ipv6UdpIfIndex OBJECT-TYPE
   SYNTAX
              Ipv6IfIndex0rZero
  MAX-ACCESS
               read-only
   STATUS
             obsolete
   DESCRIPTION
        "An index object used to disambiguate conceptual rows in
         the table, since the ipv6UdpLocalAddress/ipv6UdpLocalPort
         pair may not be unique.
```

This object identifies the local interface that is associated with ipv6UdpLocalAddress for this UDP listener. If such a local interface cannot be determined, this object should take on the value 0. (A possible example of this would be if the value of ipv6UdpLocalAddress is ::0.) The interface identified by a particular non-0 value of this index is the same interface as identified by the same value of ipv6IfIndex. The value of this object must remain constant during the life of this UDP endpoint. This object is obsoleted by the zone identifier in an InetAddressIPv6z address in UDP-MIB::udpEndpointLocalAddress." ::= { ipv6UdpEntry 3 } -- conformance information ipv6UdpConformance OBJECT IDENTIFIER ::= { ipv6UdpMIB 2 } ipv6UdpCompliances OBJECT IDENTIFIER ::= { ipv6UdpConformance 1 } -- compliance statements ipv6UdpCompliance MODULE-COMPLIANCE STATUS obsolete **DESCRIPTION** "The compliance statement for SNMPv2 entities which implement UDP over IPv6. This object is obsoleted by UDP-MIB::udpMIBCompliance2." MODULE -- this module MANDATORY-GROUPS { ipv6UdpGroup } ::= { ipv6UdpCompliances 1 } ipv6UdpGroup OBJECT-GROUP OBJECTS { -- these are defined in this module -- ipv6UdpLocalAddress (not-accessible) -- ipv6UdpLocalPort (not-accessible) ipv6UdpIfIndex } obsolete STATUS DESCRIPTION "The group of objects providing management of

```
UDP over IPv6.
          This group is obsoleted by several groups in UDP-MIB."
    ::= { ipv6UdpGroups 1 }
END
6. Historic IPV6-TCP-MIB
IPV6-TCP-MIB DEFINITIONS ::= BEGIN
IMPORTS
   MODULE-COMPLIANCE, OBJECT-GROUP
                                        FROM SNMPv2-CONF
   MODULE-IDENTITY, OBJECT-TYPE,
   mib-2, experimental
                                         FROM SNMPv2-SMI
   Ipv6Address, Ipv6IfIndexOrZero
                                       FROM IPV6-TC;
ipv6TcpMIB MODULE-IDENTITY
   LAST-UPDATED "201505282112Z"
   ORGANIZATION "IETF IPv6 MIB Working Group"
   CONTACT-INFO
                Mike Daniele
                Postal: Compaq Computer Corporation
                        110 Spitbrook Rd
                        Nashua, NH 03062.
                        US
                Phone: +1 603 884 1423
                Email: daniele@zk3.dec.com"
   DESCRIPTION
        "The obsolete MIB module for entities implementing TCP
        over IPv6. Use the TCP-MIB instead."
   REVISION "201505282112Z"
   DESCRIPTION
        "Obsoleting this MIB module; it has been replaced by
        the revised TCP-MIB (RFC4022)."
   REVISION "9801290000Z"
   DESCRIPTION
        "First revision, published as <a href="RFC2452">RFC2452</a>"
   ::= { experimental 86 }
-- objects specific to TCP for IPv6
tcp
         OBJECT IDENTIFIER ::= { mib-2 6 }
-- the TCP over IPv6 Connection table
```

```
-- This connection table contains information about this
-- entity's existing TCP connections between IPv6 endpoints.
-- Only connections between IPv6 addresses are contained in
-- this table. This entity's connections between IPv4
-- endpoints are contained in tcpConnTable.
ipv6TcpConnTable OBJECT-TYPE
   SYNTAX
               SEQUENCE OF Ipv6TcpConnEntry
   MAX-ACCESS not-accessible
   STATUS
               obsolete
   DESCRIPTION
        "A table containing TCP connection-specific information,
         for only those connections whose endpoints are IPv6 addresses.
         This table is obsoleted by TCP-MIB::tcpConnectionTable."
   ::= { tcp 16 }
ipv6TcpConnEntry OBJECT-TYPE
   SYNTAX
               Ipv6TcpConnEntry
   MAX-ACCESS not-accessible
               obsolete
   STATUS
   DESCRIPTION
        "A conceptual row of the ipv6TcpConnTable containing
         information about a particular current TCP connection.
         Each row of this table is transient, in that it ceases to
         exist when (or soon after) the connection makes the transition
         to the CLOSED state.
         Note that conceptual rows in this table require an additional
         index object compared to tcpConnTable, since IPv6 addresses
         are not guaranteed to be unique on the managed node.
         This entry is obsoleted by TCP-MIB::tcpConnectionEntry."
   INDEX
           { ipv6TcpConnLocalAddress,
             ipv6TcpConnLocalPort,
             ipv6TcpConnRemAddress,
             ipv6TcpConnRemPort,
             ipv6TcpConnIfIndex }
   ::= { ipv6TcpConnTable 1 }
Ipv6TcpConnEntry ::=
   SEQUENCE { ipv6TcpConnLocalAddress
                                         Ipv6Address,
              ipv6TcpConnLocalPort
                                         INTEGER,
              ipv6TcpConnRemAddress
                                         Ipv6Address,
              ipv6TcpConnRemPort
                                         INTEGER,
              ipv6TcpConnIfIndex
                                         Ipv6IfIndex0rZero,
              ipv6TcpConnState
                                         INTEGER }
```

```
ipv6TcpConnLocalAddress OBJECT-TYPE
  SYNTAX
              Ipv6Address
  MAX-ACCESS not-accessible
  STATUS
              obsolete
   DESCRIPTION
        "The local IPv6 address for this TCP connection. In
         the case of a connection in the listen state which
         is willing to accept connections for any IPv6
         address associated with the managed node, the value
         ::0 is used.
         This object is obsoleted by
         TCP-MIB::tcpConnectionLocalAddressType."
   ::= { ipv6TcpConnEntry 1 }
ipv6TcpConnLocalPort OBJECT-TYPE
   SYNTAX
            INTEGER (0..65535)
  MAX-ACCESS not-accessible
  STATUS
             obsolete
   DESCRIPTION
        "The local port number for this TCP connection.
        This object is obsoleted by TCP-MIB::tcpConnectionLocalPort."
   ::= { ipv6TcpConnEntry 2 }
ipv6TcpConnRemAddress OBJECT-TYPE
             Ipv6Address
   SYNTAX
  MAX-ACCESS not-accessible
  STATUS
            obsolete
   DESCRIPTION
        "The remote IPv6 address for this TCP connection.
        This object is obsoleted by TCP-MIB::tcpConnectionRemAddress."
   ::= { ipv6TcpConnEntry 3 }
ipv6TcpConnRemPort OBJECT-TYPE
              INTEGER (0..65535)
  MAX-ACCESS not-accessible
  STATUS
             obsolete
   DESCRIPTION
        "The remote port number for this TCP connection.
        This object is obsoleted by TCP-MIB::tcpConnectionRemPort."
   ::= { ipv6TcpConnEntry 4 }
ipv6TcpConnIfIndex OBJECT-TYPE
  SYNTAX
              Ipv6IfIndex0rZero
  MAX-ACCESS not-accessible
```

STATUS obsolete DESCRIPTION

"An index object used to disambiguate conceptual rows in the table, since the connection 4-tuple may not be unique.

If the connection's remote address (ipv6TcpConnRemAddress) is a link-local address and the connection's local address (ipv6TcpConnLocalAddress) is not a link-local address, this object identifies a local interface on the same link as the connection's remote link-local address.

Otherwise, this object identifies the local interface that is associated with the ipv6TcpConnLocalAddress for this TCP connection. If such a local interface cannot be determined, this object should take on the value 0. (A possible example of this would be if the value of ipv6TcpConnLocalAddress is ::0.)

The interface identified by a particular non-0 value of this index is the same interface as identified by the same value of ipv6IfIndex.

The value of this object must remain constant during the life of the TCP connection.

```
This object is obsoleted by the zone identifier in
         an InetAddressIPv6z address in either
         TCP-MIB::tcpConnectionLocalAddress or
         TCP-MIB::tcpConnectionRemAddress."
   ::= { ipv6TcpConnEntry 5 }
ipv6TcpConnState OBJECT-TYPE
   SYNTAX
              INTEGER {
        closed(1),
        listen(2),
        synSent(3),
        synReceived(4),
        established(5),
        finWait1(6),
        finWait2(7),
        closeWait(8),
        lastAck(9),
        closing(10),
        timeWait(11),
        deleteTCB(12) }
   MAX-ACCESS read-write
   STATUS
              obsolete
   DESCRIPTION
```

"The state of this TCP connection.

The only value which may be set by a management station is deleteTCB(12). Accordingly, it is appropriate for an agent to return an error response (`badValue' for SNMPv1, 'wrongValue' for SNMPv2) if a management station attempts to set this object to any other value.

If a management station sets this object to the value deleteTCB(12), then this has the effect of deleting the TCB (as defined in $\overline{\text{RFC }793}$) of the corresponding connection on the managed node, resulting in immediate termination of the connection.

As an implementation-specific option, a RST segment may be sent from the managed node to the other TCP endpoint (note however that RST segments are not sent reliably).

```
This object is obsoleted by TCP-MIB::tcpConnectionState."
   ::= { ipv6TcpConnEntry 6 }
-- conformance information
ipv6TcpConformance OBJECT IDENTIFIER ::= { ipv6TcpMIB 2 }
ipv6TcpCompliances OBJECT IDENTIFIER ::= { ipv6TcpConformance 1 }
ipv6TcpGroups
                   OBJECT IDENTIFIER ::= { ipv6TcpConformance 2 }
-- compliance statements
ipv6TcpCompliance MODULE-COMPLIANCE
  STATUS obsolete
   DESCRIPTION
        "The compliance statement for SNMPv2 entities which
         implement TCP over IPv6.
         This compliance statement is obsoleted by
         TCP-MIB::tcpMIBCompliance2."
   MODULE -- this module
   MANDATORY-GROUPS { ipv6TcpGroup }
   ::= { ipv6TcpCompliances 1 }
ipv6TcpGroup OBJECT-GROUP
   OBJECTS
            { -- these are defined in this module
               -- ipv6TcpConnLocalAddress (not-accessible)
               -- ipv6TcpConnLocalPort (not-accessible)
               -- ipv6TcpConnRemAddress (not-accessible)
               -- ipv6TcpConnRemPort (not-accessible)
```

Fenner

END

7. Reclassification

This document reclassifies [RFC2452], [RFC2454], [RFC2465], and [RFC2466] to Historic.

8. Security Considerations

This document contains only obsolete objects, which [RFC2578] says "should not be implemented and/or can be removed if previously implemented". Since the contents of this document should not be implemented, it has no security implications. If there were any security implications based on these objects in an implementation, removing these objects as [RFC2578] suggests would improve the security of that implementation.

9. IANA Considerations

In smi-numbers $[\underline{1}]$, the entries for $\underline{\mathsf{RFC2452}}$ and $\underline{\mathsf{RFC2454}}$, in the "SMI Experimental Codes" section, have an annotation "(Historic)" or "(Historical)".

IANA is asked to make the following changes to the "SMI Network Management MGMT Codes Internet-standard MIB" section:

- o Remove RFC1213 from the references for mib-2.5 "icmp".
- o Update the reference for mib-2.6 "tcp" to point to RFC4022.
- o Remove RFC1213 from the references for mib-2.7 "udp".
- o Remove RFC2012 from the references for mib-2.49 "tcpMIB".
- o Add the "(Historic)" annotation for the entries for mib-2.55 "ipv6MIB" and for mib-2.56 "ipv6IcmpMIB", and update the reference to point to this document.

IANA is asked to make the following changes to the "SMI Experimental Codes" section:

- o Add the "(Historic)" annotation for experimental.74 "IPV6 MIB"
- o Change the "(Historical)" annotation for experimental.87 "ipv6UdpMIB" to "(Historic)"
- o Update the reference for experimental.86 "ipv6TcpMIB" and experimental.87 "ipv6UdpMIB" to point to this document.

10. References

10.1. Normative References

[RFC2578] McCloghrie, K., Ed., Perkins, D., Ed., and J.
 Schoenwaelder, Ed., "Structure of Management Information
 Version 2 (SMIv2)", STD 58, RFC 2578, DOI 10.17487/
 RFC2578, April 1999,
 http://www.rfc-editor.org/info/rfc2578>.

10.2. Informative References

- [RFC2452] Daniele, M., "IP Version 6 Management Information Base for the Transmission Control Protocol", RFC 2452, DOI 10.17487/RFC2452, December 1998, http://www.rfc-editor.org/info/rfc2452.
- [RFC2454] Daniele, M., "IP Version 6 Management Information Base for the User Datagram Protocol", RFC 2454, DOI 10.17487/ RFC2454, December 1998, http://www.rfc-editor.org/info/rfc2454.

- [RFC4113] Fenner, B. and J. Flick, "Management Information Base for the User Datagram Protocol (UDP)", RFC 4113, DOI 10.17487/ RFC4113, June 2005, http://www.rfc-editor.org/info/rfc4113.
- [RFC4293] Routhier, S., Ed., "Management Information Base for the Internet Protocol (IP)", <u>RFC 4293</u>, DOI 10.17487/RFC4293, April 2006, http://www.rfc-editor.org/info/rfc4293.

10.3. URIS

[1] http://www.iana.org/assignments/smi-numbers/smi-numbers.xhtml

Appendix A. Change history

A.1. Changes since draft-ietf-6man-ipv6-mibs-obsolete-01

- o Thanks to ops-dir comments by Dan Romascanu and Juergen Schoenwaelder, updated the motiviation text to include Juergen's ASCII art history and a specific mention that this is not the intended disposition of all obsolete MIBs.
- o Thanks to gen-art review by Jouni Korhonen, who pointed out that I had neglected RFC2579's requirement to note the obsoleting object for TEXTUAL-CONVENTIONS too.

A.2. Changes since draft-ietf-6man-ipv6-mibs-obsolete-00

Thanks to an excellent review by Mike Heard.

- o Correct the REVISION clause for the original IPV6-MIB
- o Remove the illegal sub-typing from SEQUENCE definitions in IPV6-MIB, IPV6-UDP-MIB and IPV6-TCP-MIB.

A.3. Changes since draft-fenner-ipv6-mibs-obsolete-00

- o Realized that IPV6-ICMP-MIB was [RFC2466], so modified the added REVISION clause and the Reclassification section.
- o Added Security Considerations
- o Added IANA Considerations

- o Added the 6.c.iii Legend to the copyright statement, since the original RFCs were published before pre-5378.
- o Used "MIB module" instead of "MIB" when referring to a module, and changed REVISION DESCRIPTION to "Obsoleting", not "Deprecating".
- o Added "Obsoletes:" header to document
- o Switched to pre-5378 IPR statement, since the original RFCs were pre-5378.

<u>A.4</u>. Changes since <u>draft-fenner-ipv6-mibs-obsolete-01</u>

- o Updated the DESCRIPTION of MODULE-IDENTITY to improve the "MIB index" problem.
- o Updated IANA considerations.

A.5. Changes since draft-fenner-ipv6-mibs-obsolete-02

- o Fixed "IPV6-MIB" in title
- o Fixed some extra blank lines in the source MIBs, introduced by the process of extraction from RFCs.

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