The IPv6-Specific MIB Modules Are Obsolete

Abstract

In 2005-2006, 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. This
document obsoletes RFCs 2452, 2454, 2465, and 2466 (i.e., the RFCs
containing these MIBs) and reclassifies them as Historic.

Status of This Memo

This document is not an Internet Standards Track specification; it is
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1. Motivation

In 2005-2006, 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. The RFC Editor marked these documents 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 is as 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 Structure of Management Information (SMI) status changed to obsolete. This is an unusual step, and it is not the intended path with every obsolete MIB module; the special history of these modules led to this special step.
2. Historic IPV6-TC

IPV6-TC DEFINITIONS ::= BEGIN

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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))

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"
   STATUS obsolete
   DESCRIPTION
   "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)

Ipv6IfIndexOrZero ::= TEXTUAL-CONVENTION
   DISPLAY-HINT "d"
   STATUS obsolete
   DESCRIPTION
   "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)

END
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,
  Ipv6IfIndexOrZero                     FROM IPV6-TC;

ipv6MIB MODULE-IDENTITY
LAST-UPDATED "201702220000Z"
ORGANIZATION "IETF IPv6 Working Group"
CONTACT-INFO
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DESCRIPTION
  "The obsolete MIB module for entities implementing the IPv6
  protocol. Use the IP-MIB or IP-FORWARD-MIB instead.

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REVISION "201702220000Z"
DESCRIPTION
"Obsoleting this MIB module; it has been replaced by
the revised IP-MIB (RFC 4293) and IP-FORWARD-MIB
(RFC 4292)."

REVISION "9802052155Z"
DESCRIPTION
"First revision, published as RFC 2465"
::= { 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
STATUS obsolete
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.

This object is obsoleted by IP-MIB::ipv6IpForwarding."
::= { ipv6MIBObjects 1 }
ipv6DefaultHopLimit OBJECT-TYPE
SYNTAX INTEGER(0..255)
MAX-ACCESS read-write
STATUS obsolete
DESCRIPTION
"The default value inserted into the Hop Limit field of the IPv6 header of datagrams originated at this entity, whenever a Hop Limit value is not supplied by the transport layer protocol.

This object is obsoleted by IP-MIB::ipv6IpDefaultHopLimit."
DEFVAL { 64 }
::= { 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
SYNTAX 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
tunnels over IPv4 or IPv6 itself.

This table is obsoleted by IP-MIB::ipv6InterfaceTable."
::= { ipv6MIBObjects 5 }

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,
    ipv6IfIdentifier         Ipv6AddressIfIdentifier,
    ipv6IfIdentifierLength   INTEGER,
    ipv6IfPhysicalAddress    PhysAddress,
    ipv6IfAdminStatus        INTEGER,
    ipv6IfOperStatus         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 [RFC1573]. If this network interface
operates over an IPv4 interface, the value of this
object refers to an instance of ipAdEntAddr [RFC1213].

    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
  UNITS       "octets"
  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
STATUS obsolete

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
STATUS obsolete

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
SYNTAX    PhysAddress
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 }

ipv6IfOperStatus OBJECT-TYPE
SYNTAX INTEGER {
    up(1), -- ready to pass packets
down(2),
    noIfIdentifier(3), -- no interface identifier
    -- status can not be
unknown(4),
-- reason
notPresent(5)   -- missing
)
MAX-ACCESS  read-only
STATUS      obsolete
DESCRIPTION
"The current operational state of the interface. The noIfIdentifier(3) state indicates that no valid Interface Identifier is assigned to the interface. 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 }

ipv6IfStatsEntry OBJECT-TYPE
SYNTAX     Ipv6IfStatsEntry
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,
Counter32,
ipv6IfStatsOutFragFails
Counter32,
ipv6IfStatsOutFragCreates
Counter32,
ipv6IfStatsReasmReqds
Counter32,
ipv6IfStatsReasmOKs
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
STATUS obsolete
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
SYNTAX Counter32
MAX-ACCESS read-only
STATUS obsolete
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
STATUS       obsolete
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 }

ipv6IfStatsReasmReqds OBJECT-TYPE
SYNTAX       Counter32
MAX-ACCESS   read-only
STATUS       obsolete
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 }

ipv6IfStatsReasmOKs 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 reassembly 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
STATUS obsolete
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::ipIfStatsHCOOutMcastPkt." 
::=  { ipv6IfStatsEntry 20 } 

-- Address Prefix table 

-- 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
SYNTAX      Ipv6AddressPrefix
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)
UNITS       "bits"
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
SYNTAX      TruthValue
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
STATUS      obsolete
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::ipAddressPrefix Autonomous Flag.
::= { ipv6AddrPrefixEntry 4 }

ipv6AddrPrefixAdvPreferredLifetime 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 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

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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 }

ipv6AddrEntry OBJECT-TYPE
SYNTAX      Ipv6AddrEntry
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

Fenner                        Informational                    [Page 24]
"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
    unknown(3) -- for some reason.
}
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

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SYNTAX INTEGER {
  preferred(1),
  deprecated(2),
  invalid(3),
  inaccessible(4),
  unknown(5) -- status can not be determined
    -- for some reason.
}
MAX-ACCESS read-only
STATUS obsolete
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.

This object is obsoleted by
IP-FORWARD-MIB::inetCidrRouteDiscards.

::= { ipv6MIBObjects 10 }

-- IPv6 Routing table

ipv6RouteTable OBJECT-TYPE
SYNTAX SEQUENCE OF Ipv6RouteEntry
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 Ipv6IfIndexOrZero,
  ipv6RouteNextHop Ipv6Address,
  ipv6RouteType INTEGER,
  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."
::= { ipv6RouteEntry 1 }

ipv6RoutePfxLength OBJECT-TYPE
SYNTAX INTEGER(0..128)
UNITS "bits"
MAX-ACCESS not-accessible
STATUS obsolete
DESCRIPTION "Indicates the prefix length of the destination address."
::= { 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."
::= { ipv6RouteEntry 3 }

ipv6RouteIfIndex OBJECT-TYPE
SYNTAX Ipv6IfIndexOrZero

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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 value can be zero.

This object is obsoleted by 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 ('00000000000000000000000000000000'H in ASN.1 string representation)."

This object is obsoleted by IP-FORWARD-MIB::inetCidrRouteNextHop."
::= { ipv6RouteEntry 5 }

ipv6RouteType OBJECT-TYPE
SYNTAX INTEGER {
   other(1), -- none of the following
   discard(2), -- to be discarded
   local(3), -- connected (sub-)network
   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
  local(2),    -- entries
  netmgmt(3),  -- static route
  ndisc(4),    -- obtained via Neighbor
  -- Discovery protocol,
  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
STATUS obsolete
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-instanted 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
UNITS      "seconds"
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 it 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 it 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.

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This object is obsoleted, and it has not been replaced.

::= { ipv6RouteEntry 13 }

ipv6RouteValid 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 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."
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
defining 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."
::= { ipv6MIBObjects 12 }
ipv6NetToMediaEntry OBJECT-TYPE
   SYNTAX     Ipv6NetToMediaEntry
   MAX-ACCESS not-accessible
   STATUS     obsolete
   DESCRIPTION
      "Each entry contains one IPv6 address to 'physical'
      address equivalence.

      This entry is obsoleted by IP-MIB::ipNetToPhysicalEntry."
   INDEX   { ipv6IfIndex,
      ipv6NetToMediaNetAddress }
::= { ipv6NetToMediaTable 1 }

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
   SYNTAX     PhysAddress
   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
SYNTAX INTEGER {
    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 [RFC2461] 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.
  }
 STATUS obsolete
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 }
 OBJECT ipv6Forwarding
  MIN-ACCESS read-only
  DESCRIPTION
  "An agent is not required to provide write access to this object"
 OBJECT ipv6DefaultHopLimit
  MIN-ACCESS read-only
  DESCRIPTION
  "An agent is not required to provide write access to this object"
 OBJECT ipv6IfDescr
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"

OBJECT ipv6RouteValid
MIN-ACCESS read-only
DESCRIPTION
"An agent is not required to provide write access to this object"

OBJECT ipv6NetToMediaValid
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, ipv6IfOperStatus, ipv6IfLastChange, ipv6IfStatsInReceives, 

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ipv6IfStatsInHdrErrors,
ipv6IfStatsInTooBigErrors,
ipv6IfStatsInNoRoutes,
ipv6IfStatsInAddrErrors,
ipv6IfStatsUnknownProtos,
ipv6IfStatsTruncatedPkts,
ipv6IfStatsInDiscards,
ipv6IfStatsInDelivers,
ipv6IfStatsOutForwDatagrams,
ipv6IfStatsOutRequests,
ipv6IfStatsOutDiscards,
ipv6IfStatsOutFragOKs,
ipv6IfStatsOutFragFails,
ipv6IfStatsOutFragCreates,
ipv6IfStatsReasmReqds,
ipv6IfStatsReasmOKs,
ipv6IfStatsReasmFails,
ipv6IfStatsInMcastPkts,
ipv6IfStatsOutMcastPkts,
ipv6AddrPrefixOnLinkFlag,
ipv6AddrPrefixAutonomousFlag,
ipv6AddrPrefixAdvPreferredLifetime,
ipv6AddrPrefixAdvValidLifetime,
ipv6AddrPrefixLength,
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 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 "201702220000Z"
  ORGANIZATION "IETF IPv6 Working Group"
  CONTACT-INFO
    Dimitry Haskin
    Postal: Bay Networks, Inc.
    660 Technology 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 ICMPv6. Use the IP-MIB instead.

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REVISION "20170222200000Z"
DESCRIPTION
"Obsoleting this MIB module; it has been replaced by the revised IP-MIB (RFC 4293)."

REVISION "9801082155Z"
DESCRIPTION
"First revision, published as RFC 2466"

::= { mib-2 56 }

-- the ICMPv6 group

ipv6IcmpMIBObjects OBJECT IDENTIFIER ::= { ipv6IcmpMIB  1 }

-- Per-interface ICMPv6 statistics table

ipv6IfIcmpTable OBJECT-TYPE
SYNTAX     SEQUENCE OF Ipv6IfIcmpEntry
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 }

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,
ipv6IfIcmpOutDestUnreaches
  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
STATUS obsolete
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 }

ipv6IfIcmpInDestUnreaches 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
SYNTAX Counter32
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::icmpMsgStatsInPkts 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::icmpMsgStatsInPkts 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
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::icmpMsgStatsInPkts 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::icmpMsgStatsInPkts 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
SYNTAX Counter32
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 }
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::icmpMsgStatsInPkts
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::icmpMsgStatsInPkts
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
SYNTAX Counter32
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::icmpMsgStatsInPkts 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
ipv6IfIcmpOutAdminProhibs OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS obsolete
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 20 }

ipv6IfIcmpOutTimeExcds OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS obsolete
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 21 }

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::icmpMsgStatsOutPkts in the row corresponding to this message type."
 ::= { ipv6IfIcmpEntry 22 }

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::icmpMsgStatsOutPkts in the row corresponding to this message type."
::= { ipv6IfIcmpEntry 24 }

ipv6IfIcmpOutEchos OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS obsolete
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
STATUS obsolete
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
ipv6IfIcmpOutNeighborSolicits OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS obsolete
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 }
ipv6IfIcmpOutGroupMembQueries 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::icmpMsgStatsOutPkts 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,
      ipv6IfIcmpInRedirects,
      ipv6IfIcmpInGroupMembQueries,
      ipv6IfIcmpInGroupMembResponses,
      ipv6IfIcmpInGroupMembReductions,
      ipv6IfIcmpOutMsgs,
      ipv6IfIcmpOutErrors,
      ipv6IfIcmpOutDestUnreachs,
      ipv6IfIcmpOutAdminProhibs,
      ipv6IfIcmpOutTimeExcds,
      ipv6IfIcmpOutParmProblems,
      ipv6IfIcmpOutPktTooBigs,
      ipv6IfIcmpOutEchos,
      ipv6IfIcmpOutEchoReplies,
      ipv6IfIcmpOutRouterSolicits,
      ipv6IfIcmpOutRouterAdvertisements,
      ipv6IfIcmpOutNeighborSolicits,
      ipv6IfIcmpOutNeighborAdvertisements,
      ipv6IfIcmpOutRedirects,
      ipv6IfIcmpOutGroupMembQueries,
      ipv6IfIcmpOutGroupMembResponses,
      ipv6IfIcmpOutGroupMembReductions
   }
STATUS obsolete
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, mib-2, experimental FROM SNMPv2-SMI
Ipv6Address, Ipv6IfIndexOrZero FROM IPV6-TC;

ipv6UdpMIB MODULE-IDENTITY
LAST-UPDATED "2017022200000Z"
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.

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REVISION "2017022200000Z"
DESCRIPTION
"Obsoleting this MIB module; it has been replaced by
the revised UDP-MIB (RFC 4113)."
REVISION "9801290000Z"
DESCRIPTION
"First revision, published as RFC 2454"
::= { experimental 87 }

-- objects specific to UDP for IPv6

udp OBJECT IDENTIFIER ::= { mib-2 7 }

-- 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
SYNTAX       SEQUENCE OF Ipv6UdpEntry
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
STATUS      obsolete
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 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 Ipv6IfIndexOrZero
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 }
ipv6UdpGroups      OBJECT IDENTIFIER ::= { ipv6UdpConformance 2 }

-- 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 }
STATUS     obsolete
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 "201702220000Z"
   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.

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      (http://trustee.ietf.org/license-info)."
   REVISION "201702220000Z"
   DESCRIPTION
      "Obsoleting this MIB module; it has been replaced by
      the revised TCP-MIB (RFC 4022)."
   REVISION "9801290000Z"
   DESCRIPTION
      "First revision, published as RFC 2452"
   ::= { 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
STATUS obsolete
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 Ipv6IfIndexOrZero,
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
SYNTAX Ipv6Address
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
SYNTAX 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     Ipv6IfIndexOrZero
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 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

Fenner                        Informational                    [Page 62]
The group of objects providing management of TCP over IPv6.

This group is obsoleted by several groups in TCP-MIB.

::= { ipv6TcpGroups 1 }
Added the "(Historic)" annotation for the entries for mib-2.55 ("ipv6MIB") and mib-2.56 ("ipv6ICmpMIB") and updated the reference of each to point to this document.

IANA has updated the "SMI Experimental Codes" section as follows:

- Added the "(Historic)" annotation for experimental.74 ("IPv6 MIB").
- Changed the "(Historical)" annotation for experimental.87 ("ipv6UdpMIB") to "(Historic)".
- Updated the reference for experimental.86 ("ipv6TcpMIB") and experimental.87 ("ipv6UdpMIB") to point to this document.

10. References

10.1. Normative References


10.2. Informative References


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