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Deprecation of MIB Module NAT-MIB: Managed Objects for Network Address Translators (NATs)

Abstract

This memo deprecates MIB module NAT-MIB, a portion of the Management Information Base (MIB) previously defined in RFC 4008 for devices implementing Network Address Translator (NAT) function. A companion document defines a new version, NATV2-MIB, which responds to deficiencies found in module NAT-MIB and adds new capabilities.

This document obsoletes RFC 4008. All MIB objects specified in RFC 4008 are included in this version unchanged with only the STATUS changed to deprecated.

Status of This Memo

This is an Internet Standards Track document.

This document is a product of the Internet Engineering Task Force (IETF). It represents the consensus of the IETF community. It has received public review and has been approved for publication by the Internet Engineering Steering Group (IESG). Further information on Internet Standards is available in Section 2 of RFC 5741.

Information about the current status of this document, any errata, and how to provide feedback on it may be obtained at http://www.rfc-editor.org/info/rfc7658.

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1. Introduction

This memo deprecates a portion of the Management Information Base (MIB), MIB module NAT-MIB, for devices implementing the Network Address Translator (NAT) function. New implementations are encouraged to base themselves upon the second version of this MIB module, NATV2-MIB, defined in [RFC7659]. NAT types and their characteristics are defined in [RFC2663]. Traditional NAT function, in particular, is defined in [RFC3022]. Neither NAT-MIB nor NATV2-MIB addresses firewall functions, and neither can be used for configuring or monitoring them.

Section 2 provides references to the Simple Network Management Protocol (SNMP) management framework, which was used as the basis for the original MIB module definition and its deprecation. Section 3 provides motivation for the deprecation of module NAT-MIB and its replacement by module NATV2-MIB. Section 4 has the complete NAT-MIB module definition, with the STATUS of all objects changed to

deprecated. Section 5 describes security considerations relating to NAT-MIB, basically relying on the security considerations in [RFC4008] and [RFC7659].

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "NOT RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in [RFC2119].

2. The Internet-Standard Management Framework

For a detailed overview of the documents that describe the current Internet-Standard Management Framework, please refer to section 7 of RFC 3410 [RFC3410].

Managed objects are accessed via a virtual information store, termed the Management Information Base or MIB. MIB objects are generally accessed through the Simple Network Management Protocol (SNMP). Objects in the MIB are defined using the mechanisms defined in the Structure of Management Information (SMI). This memo specifies a MIB module that is compliant to the SMIv2, which is described in STD 58, RFC 2578 [RFC2578], STD 58, RFC 2579 [RFC2579], and STD 58, RFC 2580 [RFC2580].

3. Motivation For Deprecating NAT-MIB

This section provides the motivation for deprecating the NAT-MIB module and its replacement by a new version.

3.1. Deprecated Features

All objects defined in [RFC4008] have been marked with "STATUS deprecated" for the following reasons:

Writability: Experience with NAT has shown that implementations vary tremendously. The NAT algorithms and data structures have little in common across devices, and this results in wildly incompatible configuration parameters. Therefore, few implementations were ever able to claim full compliance.

Lesson learned: the MIB should be read-only as much as possible.

Exposing configuration parameters: Even in read-only mode, many configuration parameters were exposed by [RFC4008] (e.g., timeouts). Since implementations vary wildly in their sets of configuration parameters, few implementations could claim even basic compliance.

Lesson learned: the NAT-MIB's purpose is not to expose configuration parameters.

Interfaces: Objects from [RFC4008] tie NAT state with interfaces (e.g., the interface table, the way map entries are grouped by interface). Many NAT implementations either never keep track of the interface or associate a mapping to a set of interfaces. Since interfaces are at the core of [RFC4008], many NAT devices were unable to have a proper implementation.

Lesson learned: NAT is a logical function that may be independent of interfaces. Do not tie NAT state with interfaces.

NAT service types: [RFC4008] used four categories of NAT service: basicNat, napt, bidirectionalNat, twiceNat. These are ill-defined, and many implementations either use different categories or do not use categories at all.

Lesson learned: do not try to categorize NAT types.

Limited transport protocol set: The set of transport protocols was defined as: other, icmp, udp, and tcp. Furthermore, the numeric values corresponding to those labels were arbitrary, without relation to the actual standard protocol numbers. This meant that NAT implementations were limited to those protocols and were unable to expose information about DCCP, SCTP, etc.

Lesson learned: use standard transport protocol numbers.

3.2. Desirable New Features

A number of desirable new features have been identified that are not present in NAT-MIB. See the latter part of Section 2 of [RFC7659].

4. Definitions

This MIB module IMPORTs objects from [RFC2578], [RFC2579], [RFC2580], [RFC2863], [RFC3411], and [RFC4001]. It also refers to information in [RFC792], [RFC4443], and [RFC3413].

```
NAT-MIB DEFINITIONS ::= BEGIN

IMPORTS
     MODULE-IDENTITY,
     OBJECT-TYPE,
     Integer32,
     Unsigned32,
     Gauge32,
     Counter64,
     TimeTicks,
     mib-2,
     NOTIFICATION-TYPE
             FROM SNMPv2-SMI
     TEXTUAL-CONVENTION,
     StorageType,
     RowStatus
             FROM SNMPv2-TC
     MODULE-COMPLIANCE,
     NOTIFICATION-GROUP,
     OBJECT-GROUP
             FROM SNMPv2-CONF
     ifIndex,
     ifCounterDiscontinuityGroup
             FROM IF-MIB
     SnmpAdminString
             FROM SNMP-FRAMEWORK-MIB
     InetAddressType,
     InetAddress,
     InetPortNumber
             FROM INET-ADDRESS-MIB;

natMIB MODULE-IDENTITY
     LAST-UPDATED "201510020000Z" -- 2 October 2015
     ORGANIZATION
             "IETF Behavior Engineering for Hindrance Avoidance
              (BEHAVE) Working Group"
     CONTACT-INFO
             "Working Group Email: behave@ietf.org

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            PT Taylor Consulting
            Ottawa
            Canada

            Email: tom.taylor.stds@gmail.com"
    DESCRIPTION
            "This MIB module defines the generic managed objects
            for NAT.

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            identified as authors of the code.  All rights reserved.

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            or without modification, is permitted pursuant to, and
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            BSD License set forth in Section 4.c of the IETF Trust's
            Legal Provisions Relating to IETF Documents
            (http://trustee.ietf.org/license-info).

            This version of this MIB module is part of RFC 7658;
            see the RFC itself for full legal notices."
    REVISION     "201510020000Z"  -- 2 October 2015
    DESCRIPTION
```

```
            "Deprecation of all objects, published as RFC 7658.
             See NATV2-MIB in RFC 7659 for recommended replacement."
     REVISION     "200503210000Z"  -- 21 March 2005
     DESCRIPTION
            "Initial version, published as RFC 4008."
     ::= { mib-2 123 }

natMIBObjects OBJECT IDENTIFIER ::= { natMIB 1 }

NatProtocolType ::= TEXTUAL-CONVENTION
       STATUS       deprecated
       DESCRIPTION
               "A list of protocols that support the network
                address translation.  Inclusion of the values is
                not intended to imply that those protocols
                need to be supported.  Any change in this
                TEXTUAL-CONVENTION should also be reflected in
                the definition of NatProtocolMap, which is a
                BITS representation of this.
                Deprecated in favor of NATV2-MIB."
       REFERENCE   "RFC 7658, RFC 7659"
       SYNTAX   INTEGER {
                    none (1),  -- not specified
                    other (2), -- none of the following
                    icmp (3),
                    udp (4),
                    tcp (5)
                  }

NatProtocolMap ::= TEXTUAL-CONVENTION
       STATUS       deprecated
       DESCRIPTION
               "A bitmap of protocol identifiers that support
                the network address translation.  Any change
                in this TEXTUAL-CONVENTION should also be
                reflected in the definition of NatProtocolType.
                Deprecated in favor of NATV2-MIB."
       REFERENCE   "RFC 7658, RFC 7659"
       SYNTAX   BITS {
                  other (0),
                  icmp (1),
                  udp (2),
                  tcp (3)
                }

NatAddrMapId ::= TEXTUAL-CONVENTION
       DISPLAY-HINT "d"
       STATUS deprecated
```

```
        DESCRIPTION
                "A unique ID that is assigned to each address map
                 by a NAT-enabled device.
                 Deprecated in favor of NATV2-MIB."
        REFERENCE   "RFC 7658, RFC 7659"
        SYNTAX   Unsigned32 (1..4294967295)

NatBindIdOrZero ::= TEXTUAL-CONVENTION
        DISPLAY-HINT "d"
        STATUS deprecated
        DESCRIPTION
                "A unique ID that is assigned to each bind by
                 a NAT-enabled device.  The bind ID will be zero
                 in the case of a Symmetric NAT.
                 Deprecated in favor of NATV2-MIB."
        REFERENCE   "RFC 7658, RFC 7659"
        SYNTAX   Unsigned32 (0..4294967295)

NatBindId ::= TEXTUAL-CONVENTION
        DISPLAY-HINT "d"
        STATUS deprecated
        DESCRIPTION
                "A unique ID that is assigned to each bind by
                 a NAT-enabled device.
                 Deprecated in favor of NATV2-MIB."
        REFERENCE   "RFC 7658, RFC 7659"
        SYNTAX   Unsigned32 (1..4294967295)

NatSessionId ::= TEXTUAL-CONVENTION
        DISPLAY-HINT "d"
        STATUS deprecated
        DESCRIPTION
                "A unique ID that is assigned to each session by
                 a NAT-enabled device.
                 Deprecated in favor of NATV2-MIB."
        REFERENCE   "RFC 7658, RFC 7659"
        SYNTAX   Unsigned32 (1..4294967295)

NatBindMode ::= TEXTUAL-CONVENTION
        STATUS deprecated
        DESCRIPTION
                "An indication of whether the bind is
                 an address bind or an address port bind.
                 Deprecated in favor of NATV2-MIB."
        REFERENCE   "RFC 7658, RFC 7659"
        SYNTAX   INTEGER {
                      addressBind (1),
                      addressPortBind (2)
```

```
                }

NatAssociationType ::= TEXTUAL-CONVENTION
       STATUS deprecated
       DESCRIPTION
               "An indication of whether the association is
                static or dynamic.
                Deprecated in favor of NATV2-MIB."
       REFERENCE   "RFC 7658, RFC 7659"
       SYNTAX   INTEGER {
                    static (1),
                    dynamic (2)
                }

NatTranslationEntity ::= TEXTUAL-CONVENTION
       STATUS       deprecated
       DESCRIPTION
               "An indication of a) the direction of a session for
                which an address map entry, address bind, or port
                bind is applicable, and b) the entity (source or
                destination) within the session that is subject to
                translation.
                Deprecated in favor of NATV2-MIB."
       REFERENCE   "RFC 7658, RFC 7659"
       SYNTAX   BITS {
                  inboundSrcEndPoint (0),
                  outboundDstEndPoint(1),
                  inboundDstEndPoint (2),
                  outboundSrcEndPoint(3)
                }

--
-- Default Values for the Bind and NAT Protocol Timers
--

natDefTimeouts OBJECT IDENTIFIER ::= { natMIBObjects 1 }

natNotifCtrl OBJECT IDENTIFIER ::= { natMIBObjects 2 }

--
-- NAT configuration related to Address Bind and Port Bind
--

natBindDefIdleTimeout OBJECT-TYPE
    SYNTAX     Unsigned32  (0..4294967295)
    UNITS      "seconds"
    MAX-ACCESS read-write
    STATUS     deprecated
```

```
    DESCRIPTION
            "The default Bind (Address Bind or Port Bind) idle
             timeout parameter.

             If the agent is capable of storing non-volatile
             configuration, then the value of this object must be
             restored after a reinitialization of the management
             system.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    DEFVAL { 0 }
    ::= { natDefTimeouts 1 }

--
-- UDP related NAT configuration
--

natUdpDefIdleTimeout OBJECT-TYPE
    SYNTAX     Unsigned32  (1..4294967295)
    UNITS      "seconds"
    MAX-ACCESS read-write
    STATUS     deprecated
    DESCRIPTION
            "The default UDP idle timeout parameter.

             If the agent is capable of storing non-volatile
             configuration, then the value of this object must be
             restored after a reinitialization of the management
             system.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    DEFVAL { 300 }
    ::= { natDefTimeouts 2 }

--
-- ICMP related NAT configuration
--

natIcmpDefIdleTimeout OBJECT-TYPE
    SYNTAX     Unsigned32  (1..4294967295)
    UNITS      "seconds"
    MAX-ACCESS read-write
    STATUS     deprecated
    DESCRIPTION
            "The default ICMP idle timeout parameter.

             If the agent is capable of storing non-volatile
             configuration, then the value of this object must be
```

```
                restored after a reinitialization of the management
                system.
                Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    DEFVAL { 300 }
    ::= { natDefTimeouts 3 }

--
-- Other protocol parameters
--

natOtherDefIdleTimeout OBJECT-TYPE
    SYNTAX     Unsigned32  (1..4294967295)
    UNITS      "seconds"
    MAX-ACCESS read-write
    STATUS     deprecated
    DESCRIPTION
            "The default idle timeout parameter for protocols
             represented by the value other (2) in
             NatProtocolType.

             If the agent is capable of storing non-volatile
             configuration, then the value of this object must be
             restored after a reinitialization of the management
             system.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    DEFVAL { 60 }
    ::= { natDefTimeouts 4 }

--
-- TCP related NAT Timers
--

natTcpDefIdleTimeout OBJECT-TYPE
    SYNTAX     Unsigned32  (1..4294967295)
    UNITS      "seconds"
    MAX-ACCESS read-write
    STATUS     deprecated
    DESCRIPTION
            "The default time interval that a NAT session for an
             established TCP connection is allowed to remain
             valid without any activity on the TCP connection.

             If the agent is capable of storing non-volatile
             configuration, then the value of this object must be
             restored after a reinitialization of the management
             system.
```

```
            Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    DEFVAL { 86400 }
    ::= { natDefTimeouts 5 }

natTcpDefNegTimeout OBJECT-TYPE
    SYNTAX     Unsigned32  (1..4294967295)
    UNITS      "seconds"
    MAX-ACCESS read-write
    STATUS     deprecated
    DESCRIPTION
            "The default time interval that a NAT session for a TCP
             connection that is not in the established state
             is allowed to remain valid without any activity on
             the TCP connection.

             If the agent is capable of storing non-volatile
             configuration, then the value of this object must be
             restored after a reinitialization of the management
             system.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    DEFVAL { 60 }
    ::= { natDefTimeouts 6 }

natNotifThrottlingInterval OBJECT-TYPE
    SYNTAX      Integer32 (0 | 5..3600)
    UNITS       "seconds"
    MAX-ACCESS  read-write
    STATUS      deprecated
    DESCRIPTION
            "This object controls the generation of the
             natPacketDiscard notification.

             If this object has a value of zero, then no
             natPacketDiscard notifications will be transmitted by
             the agent.

             If this object has a non-zero value, then the agent must
             not generate more than one natPacketDiscard
             'notification-event' in the indicated period, where a
             'notification-event' is the generation of a single
             notification PDU type to a list of notification
             destinations.  If additional NAT packets are discarded
             within the throttling period, then notification-events
             for these changes must be suppressed by the agent until
             the current throttling period expires.
```

```
                If natNotifThrottlingInterval notification generation
                is enabled, the suggested default throttling period is
                60 seconds, but generation of the natPacketDiscard
                notification should be disabled by default.

                If the agent is capable of storing non-volatile
                configuration, then the value of this object must be
                restored after a reinitialization of the management
                system.

                The actual transmission of notifications is controlled
                via the MIB modules in RFC 3413.
                Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    DEFVAL { 0 }
    ::= { natNotifCtrl 1 }

--
-- The NAT Interface Table
--

natInterfaceTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF NatInterfaceEntry
    MAX-ACCESS  not-accessible
    STATUS      deprecated
    DESCRIPTION
            "This table specifies the attributes for interfaces on a
             device supporting NAT function.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natMIBObjects 3 }

natInterfaceEntry OBJECT-TYPE
    SYNTAX      NatInterfaceEntry
    MAX-ACCESS  not-accessible
    STATUS      deprecated
    DESCRIPTION
            "Each entry in the natInterfaceTable holds a set of
             parameters for an interface, instantiated by
             ifIndex.  Therefore, the interface index must have been
             assigned, according to the applicable procedures,
             before it can be meaningfully used.
             Generally, this means that the interface must exist.

             When natStorageType is of type nonVolatile, however,
             this may reflect the configuration for an interface
             whose ifIndex has been assigned but for which the
             supporting implementation is not currently present.
```

```
            Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    INDEX   { ifIndex }
    ::= { natInterfaceTable 1 }

NatInterfaceEntry ::= SEQUENCE {
    natInterfaceRealm            INTEGER,
    natInterfaceServiceType      BITS,
    natInterfaceInTranslates     Counter64,
    natInterfaceOutTranslates    Counter64,
    natInterfaceDiscards         Counter64,
    natInterfaceStorageType      StorageType,
    natInterfaceRowStatus        RowStatus
}

natInterfaceRealm OBJECT-TYPE
    SYNTAX     INTEGER {
                   private (1),
                   public (2)
               }
    MAX-ACCESS read-create
    STATUS     deprecated
    DESCRIPTION
            "This object identifies whether this interface is
             connected to the private or the public realm.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    DEFVAL  { public }
    ::= { natInterfaceEntry 1 }

natInterfaceServiceType OBJECT-TYPE
    SYNTAX  BITS {
                basicNat (0),
                napt (1),
                bidirectionalNat (2),
                twiceNat (3)
            }
    MAX-ACCESS  read-create
    STATUS      deprecated
    DESCRIPTION
            "An indication of the direction in which new sessions
             are permitted and the extent of translation done within
             the IP and transport headers.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natInterfaceEntry 2 }

natInterfaceInTranslates OBJECT-TYPE
```

```
    SYNTAX     Counter64
    MAX-ACCESS read-only
    STATUS     deprecated
    DESCRIPTION
            "Number of packets received on this interface that
             were translated.
             Discontinuities in the value of this counter can occur
             at reinitialization of the management system and at
             other times as indicated by the value of
             ifCounterDiscontinuityTime on the relevant interface.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natInterfaceEntry 3 }

natInterfaceOutTranslates OBJECT-TYPE
    SYNTAX     Counter64
    MAX-ACCESS read-only
    STATUS     deprecated
    DESCRIPTION
            "Number of translated packets that were sent out this
             interface.

             Discontinuities in the value of this counter can occur
             at reinitialization of the management system and at
             other times as indicated by the value of
             ifCounterDiscontinuityTime on the relevant interface.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natInterfaceEntry 4 }

natInterfaceDiscards OBJECT-TYPE
    SYNTAX     Counter64
    MAX-ACCESS read-only
    STATUS     deprecated
    DESCRIPTION
            "Number of packets that had to be rejected/dropped due to
             a lack of resources for this interface.

             Discontinuities in the value of this counter can occur
             at reinitialization of the management system and at
             other times as indicated by the value of
             ifCounterDiscontinuityTime on the relevant interface.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
     ::= { natInterfaceEntry 5 }

natInterfaceStorageType OBJECT-TYPE
    SYNTAX      StorageType
```

```
    MAX-ACCESS  read-create
    STATUS      deprecated
    DESCRIPTION
            "The storage type for this conceptual row.
             Conceptual rows having the value 'permanent'
             need not allow write-access to any columnar objects
             in the row.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659, and Section 2 of RFC 2579
                (Textual Conventions for Conventions for SMIv2)."
    DEFVAL { nonVolatile }
    ::= { natInterfaceEntry 6 }

natInterfaceRowStatus OBJECT-TYPE
    SYNTAX      RowStatus
    MAX-ACCESS  read-create
    STATUS      deprecated
    DESCRIPTION
            "The status of this conceptual row.

             Until instances of all corresponding columns are
             appropriately configured, the value of the
             corresponding instance of the natInterfaceRowStatus
             column is 'notReady'.

             In particular, a newly created row cannot be made
             active until the corresponding instance of
             natInterfaceServiceType has been set.

             None of the objects in this row may be modified
             while the value of this object is active(1).
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659, and Section 2 of RFC 2579
                (Textual Conventions for Conventions for SMIv2)."
    ::= { natInterfaceEntry 7 }

--
-- The Address Map Table
--

natAddrMapTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF NatAddrMapEntry
    MAX-ACCESS  not-accessible
    STATUS      deprecated
    DESCRIPTION
            "This table lists address map parameters for NAT.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
```

```
    ::= { natMIBObjects 4 }

natAddrMapEntry OBJECT-TYPE
    SYNTAX      NatAddrMapEntry
    MAX-ACCESS  not-accessible
    STATUS      deprecated
    DESCRIPTION
            "This entry represents an address map to be used for
             NAT and contributes to the dynamic and/or static
             address mapping tables of the NAT device.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    INDEX   { ifIndex, natAddrMapIndex }
    ::= { natAddrMapTable 1 }

NatAddrMapEntry ::= SEQUENCE {
    natAddrMapIndex                 NatAddrMapId,
    natAddrMapName                  SnmpAdminString,
    natAddrMapEntryType             NatAssociationType,
    natAddrMapTranslationEntity     NatTranslationEntity,
    natAddrMapLocalAddrType         InetAddressType,
    natAddrMapLocalAddrFrom         InetAddress,
    natAddrMapLocalAddrTo           InetAddress,
    natAddrMapLocalPortFrom         InetPortNumber,
    natAddrMapLocalPortTo           InetPortNumber,
    natAddrMapGlobalAddrType        InetAddressType,
    natAddrMapGlobalAddrFrom        InetAddress,
    natAddrMapGlobalAddrTo          InetAddress,
    natAddrMapGlobalPortFrom        InetPortNumber,
    natAddrMapGlobalPortTo          InetPortNumber,
    natAddrMapProtocol              NatProtocolMap,
    natAddrMapInTranslates          Counter64,
    natAddrMapOutTranslates         Counter64,
    natAddrMapDiscards              Counter64,
    natAddrMapAddrUsed              Gauge32,
    natAddrMapStorageType           StorageType,
    natAddrMapRowStatus             RowStatus
}

natAddrMapIndex  OBJECT-TYPE
    SYNTAX      NatAddrMapId
    MAX-ACCESS  not-accessible
    STATUS      deprecated
    DESCRIPTION
            "Along with ifIndex, this object uniquely
             identifies an entry in the natAddrMapTable.
             Address map entries are applied in the order
             specified by natAddrMapIndex.
```

```
                Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natAddrMapEntry 1 }

natAddrMapName OBJECT-TYPE
    SYNTAX      SnmpAdminString (SIZE(1..32))
    MAX-ACCESS  read-create
    STATUS      deprecated
    DESCRIPTION
            "Name identifying all map entries in the table associated
             with the same interface.  All map entries with the same
             ifIndex MUST have the same map name.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natAddrMapEntry 2 }

natAddrMapEntryType OBJECT-TYPE
    SYNTAX      NatAssociationType
    MAX-ACCESS  read-create
    STATUS      deprecated
    DESCRIPTION
            "This parameter can be used to set up static
             or dynamic address maps.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natAddrMapEntry 3 }

natAddrMapTranslationEntity OBJECT-TYPE
    SYNTAX      NatTranslationEntity
    MAX-ACCESS  read-create
    STATUS      deprecated
    DESCRIPTION
            "The endpoint entity (source or destination) in
             inbound or outbound sessions (i.e., first packets) that
             may be translated by an address map entry.

             Session direction (inbound or outbound) is
             derived from the direction of the first packet
             of a session traversing a NAT interface.
             NAT address (and Transport-ID) maps may be defined
             to effect inbound or outbound sessions.

             Traditionally, address maps for Basic NAT and NAPT are
             configured on a public interface for outbound sessions,
             effecting translation of source endpoint.  The value of
             this object must be set to outboundSrcEndPoint for
             those interfaces.
```

```
                Alternately, if address maps for Basic NAT and NAPT were
                to be configured on a private interface, the desired
                value for this object for the map entries
                would be inboundSrcEndPoint (i.e., effecting translation
                of source endpoint for inbound sessions).

                If twiceNAT were to be configured on a private
                interface, the desired value for this object for the map
                entries would be a bitmask of inboundSrcEndPoint and
                inboundDstEndPoint.
                Deprecated in favor of NATV2-MIB."
        REFERENCE   "RFC 7658, RFC 7659"
        ::= { natAddrMapEntry 4 }

    natAddrMapLocalAddrType OBJECT-TYPE
        SYNTAX      InetAddressType
        MAX-ACCESS  read-create
        STATUS      deprecated
        DESCRIPTION
                "This object specifies the address type used for
                natAddrMapLocalAddrFrom and natAddrMapLocalAddrTo.
                Deprecated in favor of NATV2-MIB."
        REFERENCE   "RFC 7658, RFC 7659"
        ::= { natAddrMapEntry 5 }

    natAddrMapLocalAddrFrom OBJECT-TYPE
        SYNTAX      InetAddress
        MAX-ACCESS  read-create
        STATUS      deprecated
        DESCRIPTION
                "This object specifies the first IP address of the range
                of IP addresses mapped by this translation entry.  The
                value of this object must be less than or equal to the
                value of the natAddrMapLocalAddrTo object.

                The type of this address is determined by the value of
                the natAddrMapLocalAddrType object.
                Deprecated in favor of NATV2-MIB."
        REFERENCE   "RFC 7658, RFC 7659"
        ::= { natAddrMapEntry 6 }

    natAddrMapLocalAddrTo OBJECT-TYPE
        SYNTAX      InetAddress
        MAX-ACCESS  read-create
        STATUS      deprecated
        DESCRIPTION
                "This object specifies the last IP address of the range
                of IP addresses mapped by this translation entry.  If
```

```
            only a single address is being mapped, the value of this
            object is equal to the value of natAddrMapLocalAddrFrom.
            For a static NAT, the number of addresses in the range
            defined by natAddrMapLocalAddrFrom and
            natAddrMapLocalAddrTo must be equal to the number of
            addresses in the range defined by
            natAddrMapGlobalAddrFrom and natAddrMapGlobalAddrTo.
            The value of this object must be greater than or equal
            to the value of the natAddrMapLocalAddrFrom object.

            The type of this address is determined by the value of
            the natAddrMapLocalAddrType object.
            Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natAddrMapEntry 7 }

natAddrMapLocalPortFrom OBJECT-TYPE
    SYNTAX      InetPortNumber
    MAX-ACCESS  read-create
    STATUS      deprecated
    DESCRIPTION
            "If this conceptual row describes a Basic NAT address
            mapping, then the value of this object must be zero.  If
            this conceptual row describes NAPT, then the value of
            this object specifies the first port number in the range
            of ports being mapped.

            The value of this object must be less than or equal to
            the value of the natAddrMapLocalPortTo object.  If the
            translation specifies a single port, then the value of
            this object is equal to the value of
            natAddrMapLocalPortTo.
            Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    DEFVAL { 0 }
    ::= { natAddrMapEntry 8 }

natAddrMapLocalPortTo OBJECT-TYPE
    SYNTAX      InetPortNumber
    MAX-ACCESS  read-create
    STATUS      deprecated
    DESCRIPTION
            "If this conceptual row describes a Basic NAT address
            mapping, then the value of this object must be zero.  If
            this conceptual row describes NAPT, then the value of
            this object specifies the last port number in the range
            of ports being mapped.
```

```
                The value of this object must be greater than or equal
                to the value of the natAddrMapLocalPortFrom object.  If
                the translation specifies a single port, then the value
                of this object is equal to the value of
                natAddrMapLocalPortFrom.
                Deprecated in favor of NATV2-MIB."
        REFERENCE   "RFC 7658, RFC 7659"
        DEFVAL { 0 }
        ::= { natAddrMapEntry 9 }

    natAddrMapGlobalAddrType OBJECT-TYPE
        SYNTAX      InetAddressType
        MAX-ACCESS  read-create
        STATUS      deprecated
        DESCRIPTION
                "This object specifies the address type used for
                natAddrMapGlobalAddrFrom and natAddrMapGlobalAddrTo.
                Deprecated in favor of NATV2-MIB."
        REFERENCE   "RFC 7658, RFC 7659"
        ::= { natAddrMapEntry 10 }

    natAddrMapGlobalAddrFrom OBJECT-TYPE
        SYNTAX      InetAddress
        MAX-ACCESS  read-create
        STATUS      deprecated
        DESCRIPTION
                "This object specifies the first IP address of the range
                of IP addresses being mapped to.  The value of this
                object must be less than or equal to the value of the
                natAddrMapGlobalAddrTo object.

                The type of this address is determined by the value of
                the natAddrMapGlobalAddrType object.
                Deprecated in favor of NATV2-MIB."
        REFERENCE   "RFC 7658, RFC 7659"
        ::= { natAddrMapEntry 11 }

    natAddrMapGlobalAddrTo OBJECT-TYPE
        SYNTAX      InetAddress
        MAX-ACCESS  read-create
        STATUS      deprecated
        DESCRIPTION
                "This object specifies the last IP address of the range
                of IP addresses being mapped to.  If only a single
                address is being mapped to, the value of this object is
                equal to the value of natAddrMapGlobalAddrFrom.  For a
                static NAT, the number of addresses in the range defined
                by natAddrMapGlobalAddrFrom and natAddrMapGlobalAddrTo
```

```
            must be equal to the number of addresses in the range
            defined by natAddrMapLocalAddrFrom and
            natAddrMapLocalAddrTo.  The value of this object must be
            greater than or equal to the value of the
            natAddrMapGlobalAddrFrom object.

            The type of this address is determined by the value of
            the natAddrMapGlobalAddrType object.
            Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natAddrMapEntry 12 }

natAddrMapGlobalPortFrom OBJECT-TYPE
    SYNTAX      InetPortNumber
    MAX-ACCESS  read-create
    STATUS      deprecated
    DESCRIPTION
            "If this conceptual row describes a Basic NAT address
            mapping, then the value of this object must be zero.  If
            this conceptual row describes NAPT, then the value of
            this object specifies the first port number in the range
            of ports being mapped to.

            The value of this object must be less than or equal to
            the value of the natAddrMapGlobalPortTo object.  If the
            translation specifies a single port, then the value of
            this object is equal to the value
            natAddrMapGlobalPortTo.
            Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    DEFVAL { 0 }
    ::= { natAddrMapEntry 13 }

natAddrMapGlobalPortTo OBJECT-TYPE
    SYNTAX      InetPortNumber
    MAX-ACCESS  read-create
    STATUS      deprecated
    DESCRIPTION
            "If this conceptual row describes a Basic NAT address
            mapping, then the value of this object must be zero.  If
            this conceptual row describes NAPT, then the value of
            this object specifies the last port number in the range
            of ports being mapped to.

            The value of this object must be greater than or equal
            to the value of the natAddrMapGlobalPortFrom object.  If
            the translation specifies a single port, then the value
            of this object is equal to the value of
```

```
                natAddrMapGlobalPortFrom.
                Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    DEFVAL { 0 }
    ::= { natAddrMapEntry 14 }

natAddrMapProtocol OBJECT-TYPE
    SYNTAX      NatProtocolMap
    MAX-ACCESS  read-create
    STATUS      deprecated
    DESCRIPTION
            "This object specifies a bitmap of protocol identifiers.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natAddrMapEntry 15 }

natAddrMapInTranslates OBJECT-TYPE
    SYNTAX     Counter64
    MAX-ACCESS read-only
    STATUS     deprecated
    DESCRIPTION
            "The number of inbound packets pertaining to this address
             map entry that were translated.

             Discontinuities in the value of this counter can occur
             at reinitialization of the management system and at
             other times, as indicated by the value of
             ifCounterDiscontinuityTime on the relevant interface.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natAddrMapEntry 16 }

natAddrMapOutTranslates OBJECT-TYPE
    SYNTAX     Counter64
    MAX-ACCESS read-only
    STATUS     deprecated
    DESCRIPTION
            "The number of outbound packets pertaining to this
             address map entry that were translated.

             Discontinuities in the value of this counter can occur
             at reinitialization of the management system and at
             other times, as indicated by the value of
             ifCounterDiscontinuityTime on the relevant interface.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natAddrMapEntry 17 }
```

```
natAddrMapDiscards OBJECT-TYPE
    SYNTAX     Counter64
    MAX-ACCESS read-only
    STATUS     deprecated
    DESCRIPTION
            "The number of packets pertaining to this address map
             entry that were dropped due to lack of addresses in the
             address pool identified by this address map.  The value
             of this object must always be zero in case of a static
             address map.

             Discontinuities in the value of this counter can occur
             at reinitialization of the management system and at
             other times, as indicated by the value of
             ifCounterDiscontinuityTime on the relevant interface.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natAddrMapEntry 18 }

natAddrMapAddrUsed OBJECT-TYPE
    SYNTAX     Gauge32
    MAX-ACCESS read-only
    STATUS     deprecated
    DESCRIPTION
            "The number of addresses pertaining to this address map
             that are currently being used from the NAT pool.
             The value of this object must always be zero in the case
             of a static address map.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natAddrMapEntry 19 }

natAddrMapStorageType OBJECT-TYPE
    SYNTAX      StorageType
    MAX-ACCESS  read-create
    STATUS      deprecated
    DESCRIPTION
            "The storage type for this conceptual row.
             Conceptual rows having the value 'permanent'
             need not allow write-access to any columnar objects
             in the row.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659, and Section 2 of RFC 2579
                 (Textual Conventions for Conventions for SMIv2)."
    DEFVAL { nonVolatile }
    ::= { natAddrMapEntry 20 }

natAddrMapRowStatus OBJECT-TYPE
```

```
    SYNTAX      RowStatus
    MAX-ACCESS  read-create
    STATUS      deprecated
    DESCRIPTION
            "The status of this conceptual row.

             Until instances of all corresponding columns are
             appropriately configured, the value of the
             corresponding instance of the natAddrMapRowStatus
             column is 'notReady'.

             None of the objects in this row may be modified
             while the value of this object is active(1).
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659, and Section 2 of RFC 2579
                 (Textual Conventions for Conventions for SMIv2)."
    ::= { natAddrMapEntry 21 }

--
-- Address Bind section
--

natAddrBindNumberOfEntries OBJECT-TYPE
    SYNTAX     Gauge32
    MAX-ACCESS read-only
    STATUS     deprecated
    DESCRIPTION
            "This object maintains a count of the number of entries
             that currently exist in the natAddrBindTable.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natMIBObjects 5 }

--
-- The NAT Address BIND Table
--

natAddrBindTable OBJECT-TYPE
    SYNTAX     SEQUENCE OF NatAddrBindEntry
    MAX-ACCESS not-accessible
    STATUS     deprecated
    DESCRIPTION
            "This table holds information about the currently
             active NAT BINDs.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natMIBObjects 6 }
```

```
natAddrBindEntry OBJECT-TYPE
    SYNTAX     NatAddrBindEntry
    MAX-ACCESS not-accessible
    STATUS     deprecated
    DESCRIPTION
            "Each entry in this table holds information about
             an active address BIND.  These entries are lost
             upon agent restart.

             This row has indexing that may create variables with
             more than 128 subidentifiers.  Implementers of this
             table must be careful not to create entries that would
             result in OIDs that exceed the 128 subidentifier limit.
             Otherwise, the information cannot be accessed using
             SNMPv1, SNMPv2c, or SNMPv3.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"

    INDEX   { ifIndex,
              natAddrBindLocalAddrType,
              natAddrBindLocalAddr }
    ::= { natAddrBindTable 1 }

NatAddrBindEntry ::= SEQUENCE {
    natAddrBindLocalAddrType        InetAddressType,
    natAddrBindLocalAddr            InetAddress,
    natAddrBindGlobalAddrType       InetAddressType,
    natAddrBindGlobalAddr           InetAddress,
    natAddrBindId                   NatBindId,
    natAddrBindTranslationEntity    NatTranslationEntity,
    natAddrBindType                 NatAssociationType,
    natAddrBindMapIndex             NatAddrMapId,
    natAddrBindSessions             Gauge32,
    natAddrBindMaxIdleTime          TimeTicks,
    natAddrBindCurrentIdleTime      TimeTicks,
    natAddrBindInTranslates         Counter64,
    natAddrBindOutTranslates        Counter64
}

natAddrBindLocalAddrType OBJECT-TYPE
    SYNTAX      InetAddressType
    MAX-ACCESS  not-accessible
    STATUS      deprecated
    DESCRIPTION
            "This object specifies the address type used for
             natAddrBindLocalAddr.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
```

```
    ::= { natAddrBindEntry 1 }

natAddrBindLocalAddr OBJECT-TYPE
    SYNTAX     InetAddress (SIZE (4|16))
    MAX-ACCESS not-accessible
    STATUS     deprecated
    DESCRIPTION
            "This object represents the private-realm-specific
             network-layer address, which maps to the public-realm
             address represented by natAddrBindGlobalAddr.

             The type of this address is determined by the value of
             the natAddrBindLocalAddrType object.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
   ::= { natAddrBindEntry 2 }

natAddrBindGlobalAddrType OBJECT-TYPE
    SYNTAX      InetAddressType
    MAX-ACCESS  read-only
    STATUS      deprecated
    DESCRIPTION
            "This object specifies the address type used for
             natAddrBindGlobalAddr.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natAddrBindEntry 3 }

natAddrBindGlobalAddr OBJECT-TYPE
    SYNTAX     InetAddress
    MAX-ACCESS read-only
    STATUS     deprecated
    DESCRIPTION
            "This object represents the public-realm network-layer
             address that maps to the private-realm network-layer
             address represented by natAddrBindLocalAddr.

             The type of this address is determined by the value of
             the natAddrBindGlobalAddrType object.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natAddrBindEntry 4 }

natAddrBindId OBJECT-TYPE
    SYNTAX     NatBindId
    MAX-ACCESS read-only
    STATUS     deprecated
    DESCRIPTION
```

```
            "This object represents a bind ID that is dynamically
             assigned to each bind by a NAT-enabled device.  Each
             bind is represented by a bind ID that is
             unique across both the natAddrBindTable and the
             natAddrPortBindTable.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natAddrBindEntry 5 }

natAddrBindTranslationEntity OBJECT-TYPE
    SYNTAX     NatTranslationEntity
    MAX-ACCESS read-only
    STATUS     deprecated
    DESCRIPTION
            "This object represents the direction of sessions
             for which this bind is applicable and the endpoint
             entity (source or destination) within the sessions that
             is subject to translation using the BIND.

             Orientation of the bind can be a superset of
             translationEntity of the address map entry that
             forms the basis for this bind.

             For example, if the translationEntity of an
             address map entry is outboundSrcEndPoint, the
             translationEntity of a bind derived from this
             map entry may either be outboundSrcEndPoint or
             it may be bidirectional (a bitmask of
             outboundSrcEndPoint and inboundDstEndPoint).
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natAddrBindEntry 6 }

natAddrBindType OBJECT-TYPE
    SYNTAX     NatAssociationType
    MAX-ACCESS read-only
    STATUS     deprecated
    DESCRIPTION
            "This object indicates whether the bind is static or
             dynamic.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natAddrBindEntry 7 }

natAddrBindMapIndex OBJECT-TYPE
    SYNTAX     NatAddrMapId
    MAX-ACCESS read-only
    STATUS     deprecated
```

```
    DESCRIPTION
            "This object is a pointer to the natAddrMapTable entry
             (and the parameters of that entry) that was used in
             creating this BIND.  This object, in conjunction with
             the ifIndex (which identifies a unique addrMapName)
             points to a unique entry in the natAddrMapTable.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natAddrBindEntry 8 }

natAddrBindSessions OBJECT-TYPE
    SYNTAX     Gauge32
    MAX-ACCESS read-only
    STATUS     deprecated
    DESCRIPTION
            "Number of sessions currently using this BIND.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natAddrBindEntry 9 }

natAddrBindMaxIdleTime OBJECT-TYPE
    SYNTAX     TimeTicks
    MAX-ACCESS read-only
    STATUS     deprecated
    DESCRIPTION
            "This object indicates the maximum time for
             which this bind can be idle with no sessions
             attached to it.

             The value of this object is of relevance only for
             dynamic NAT.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natAddrBindEntry 10 }

natAddrBindCurrentIdleTime OBJECT-TYPE
    SYNTAX     TimeTicks
    MAX-ACCESS read-only
    STATUS     deprecated
    DESCRIPTION
            "At any given instance, this object indicates the
             time that this bind has been idle without any sessions
             attached to it.

             The value of this object is of relevance only for
             dynamic NAT.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
```

```
    ::= { natAddrBindEntry 11 }

natAddrBindInTranslates OBJECT-TYPE
    SYNTAX     Counter64
    MAX-ACCESS read-only
    STATUS     deprecated
    DESCRIPTION
            "The number of inbound packets that were successfully
             translated by using this bind entry.

             Discontinuities in the value of this counter can occur
             at reinitialization of the management system and at
             other times, as indicated by the value of
             ifCounterDiscontinuityTime on the relevant interface.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natAddrBindEntry 12 }

natAddrBindOutTranslates OBJECT-TYPE
    SYNTAX     Counter64
    MAX-ACCESS read-only
    STATUS     deprecated
    DESCRIPTION
            "The number of outbound packets that were successfully
             translated using this bind entry.

             Discontinuities in the value of this counter can occur
             at reinitialization of the management system and at
             other times as indicated by the value of
             ifCounterDiscontinuityTime on the relevant interface.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natAddrBindEntry 13 }

--
-- Address Port Bind section
--

natAddrPortBindNumberOfEntries OBJECT-TYPE
    SYNTAX     Gauge32
    MAX-ACCESS read-only
    STATUS     deprecated
    DESCRIPTION
            "This object maintains a count of the number of entries
             that currently exist in the natAddrPortBindTable.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natMIBObjects 7 }
```

```
--
-- The NAT Address Port Bind Table
--

natAddrPortBindTable OBJECT-TYPE
    SYNTAX     SEQUENCE OF NatAddrPortBindEntry
    MAX-ACCESS not-accessible
    STATUS     deprecated
    DESCRIPTION
            "This table holds information about the currently
             active NAPT BINDs.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natMIBObjects 8 }

natAddrPortBindEntry OBJECT-TYPE
    SYNTAX     NatAddrPortBindEntry
    MAX-ACCESS not-accessible
    STATUS     deprecated
    DESCRIPTION
            "Each entry in the this table holds information
             about a NAPT bind that is currently active.
             These entries are lost upon agent restart.

             This row has indexing that may create variables with
             more than 128 subidentifiers.  Implementers of this
             table must be careful not to create entries that would
             result in OIDs that exceed the 128 subidentifier limit.
             Otherwise, the information cannot be accessed using
             SNMPv1, SNMPv2c, or SNMPv3.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    INDEX   { ifIndex, natAddrPortBindLocalAddrType,
              natAddrPortBindLocalAddr, natAddrPortBindLocalPort,
              natAddrPortBindProtocol }
    ::= { natAddrPortBindTable 1 }

NatAddrPortBindEntry ::= SEQUENCE {
    natAddrPortBindLocalAddrType        InetAddressType,
    natAddrPortBindLocalAddr            InetAddress,
    natAddrPortBindLocalPort            InetPortNumber,
    natAddrPortBindProtocol             NatProtocolType,
    natAddrPortBindGlobalAddrType       InetAddressType,
    natAddrPortBindGlobalAddr           InetAddress,
    natAddrPortBindGlobalPort           InetPortNumber,
    natAddrPortBindId                   NatBindId,
    natAddrPortBindTranslationEntity    NatTranslationEntity,
    natAddrPortBindType                 NatAssociationType,
```

```
    natAddrPortBindMapIndex             NatAddrMapId,
    natAddrPortBindSessions             Gauge32,
    natAddrPortBindMaxIdleTime          TimeTicks,
    natAddrPortBindCurrentIdleTime      TimeTicks,
    natAddrPortBindInTranslates         Counter64,
    natAddrPortBindOutTranslates        Counter64
}

natAddrPortBindLocalAddrType OBJECT-TYPE
    SYNTAX      InetAddressType
    MAX-ACCESS  not-accessible
    STATUS      deprecated
    DESCRIPTION
            "This object specifies the address type used for
             natAddrPortBindLocalAddr.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natAddrPortBindEntry 1 }

natAddrPortBindLocalAddr OBJECT-TYPE
    SYNTAX     InetAddress (SIZE(4|16))
    MAX-ACCESS not-accessible
    STATUS     deprecated
    DESCRIPTION
            "This object represents the private-realm-specific
             network-layer address that, in conjunction with
             natAddrPortBindLocalPort, maps to the public-realm
             network-layer address and transport ID represented by
             natAddrPortBindGlobalAddr and natAddrPortBindGlobalPort,
             respectively.

             The type of this address is determined by the value of
             the natAddrPortBindLocalAddrType object.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natAddrPortBindEntry 2 }

natAddrPortBindLocalPort OBJECT-TYPE
    SYNTAX     InetPortNumber
    MAX-ACCESS not-accessible
    STATUS     deprecated
    DESCRIPTION
            "For a protocol value TCP or UDP, this object represents
             the private-realm-specific port number.  On the other
             hand, for ICMP a bind is created only for query/response-
             type ICMP messages such as ICMP echo, Timestamp, and
             Information request messages, and this object represents
             the private-realm-specific identifier in the ICMP
```

```
             message, as defined in RFC 792 for ICMPv4 and in RFC
             4443 for ICMPv6.

             This object, together with natAddrPortBindProtocol,
             natAddrPortBindLocalAddrType, and
             natAddrPortBindLocalAddr, constitutes a session endpoint
             in the private realm.  A bind entry binds a private-
             realm-specific endpoint to a public-realm-specific
             endpoint, as represented by the tuple of
             (natAddrPortBindGlobalPort, natAddrPortBindProtocol,
             natAddrPortBindGlobalAddrType, and
             natAddrPortBindGlobalAddr).
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
   ::= { natAddrPortBindEntry 3 }

natAddrPortBindProtocol OBJECT-TYPE
    SYNTAX      NatProtocolType
    MAX-ACCESS  not-accessible
    STATUS      deprecated
    DESCRIPTION
            "This object specifies a protocol identifier.  If the
             value of this object is none(1), then this bind entry
             applies to all IP traffic.  Any other value of this
             object specifies the class of IP traffic to which this
             BIND applies.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natAddrPortBindEntry 4 }

natAddrPortBindGlobalAddrType OBJECT-TYPE
    SYNTAX      InetAddressType
    MAX-ACCESS  read-only
    STATUS      deprecated
    DESCRIPTION
            "This object specifies the address type used for
             natAddrPortBindGlobalAddr.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natAddrPortBindEntry 5 }

natAddrPortBindGlobalAddr OBJECT-TYPE
    SYNTAX     InetAddress
    MAX-ACCESS read-only
    STATUS     deprecated
    DESCRIPTION
            "This object represents the public-realm-specific network-
             layer address that, in conjunction with
```

```
            natAddrPortBindGlobalPort, maps to the private-realm
            network-layer address and transport ID represented by
            natAddrPortBindLocalAddr and natAddrPortBindLocalPort,
            respectively.

            The type of this address is determined by the value of
            the natAddrPortBindGlobalAddrType object.
            Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natAddrPortBindEntry 6 }

natAddrPortBindGlobalPort OBJECT-TYPE
    SYNTAX     InetPortNumber
    MAX-ACCESS read-only
    STATUS     deprecated
    DESCRIPTION
            "For a protocol value TCP or UDP, this object represents
            the public-realm-specific port number.  On the other
            hand, for ICMP a bind is created only for query/response-
            type ICMP messages such as ICMP echo, Timestamp, and
            Information request messages, and this object represents
            the public-realm-specific identifier in the ICMP
            message, as defined in RFC 792 for ICMPv4 and in RFC
            4443 for ICMPv6.

            This object, together with natAddrPortBindProtocol,
            natAddrPortBindGlobalAddrType, and
            natAddrPortBindGlobalAddr, constitutes a session
            endpoint in the public realm.  A bind entry binds a
            public-realm-specific endpoint to a private-realm-
            specific endpoint, as represented by the tuple of
            (natAddrPortBindLocalPort, natAddrPortBindProtocol,
            natAddrPortBindLocalAddrType, and
            natAddrPortBindLocalAddr).
            Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natAddrPortBindEntry 7 }

natAddrPortBindId OBJECT-TYPE
    SYNTAX     NatBindId
    MAX-ACCESS read-only
    STATUS     deprecated
    DESCRIPTION
            "This object represents a bind ID that is dynamically
            assigned to each bind by a NAT-enabled device.  Each
            bind is represented by a unique bind ID across both
            the natAddrBindTable and the natAddrPortBindTable.
            Deprecated in favor of NATV2-MIB."
```

```
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natAddrPortBindEntry 8 }

natAddrPortBindTranslationEntity OBJECT-TYPE
    SYNTAX     NatTranslationEntity
    MAX-ACCESS read-only
    STATUS     deprecated
    DESCRIPTION
            "This object represents the direction of sessions
             for which this bind is applicable and the entity
             (source or destination) within the sessions that is
             subject to translation with the BIND.

             Orientation of the bind can be a superset of the
             translationEntity of the address map entry that
             forms the basis for this bind.

             For example, if the translationEntity of an
             address map entry is outboundSrcEndPoint, the
             translationEntity of a bind derived from this
             map entry may either be outboundSrcEndPoint or
             may be bidirectional (a bitmask of
             outboundSrcEndPoint and inboundDstEndPoint).
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natAddrPortBindEntry 9 }

natAddrPortBindType OBJECT-TYPE
    SYNTAX     NatAssociationType
    MAX-ACCESS read-only
    STATUS     deprecated
    DESCRIPTION
            "This object indicates whether the bind is static or
             dynamic.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natAddrPortBindEntry 10 }

natAddrPortBindMapIndex OBJECT-TYPE
    SYNTAX     NatAddrMapId
    MAX-ACCESS read-only
    STATUS     deprecated
    DESCRIPTION
            "This object is a pointer to the natAddrMapTable entry
             (and the parameters of that entry) used in
             creating this BIND.  This object, in conjunction with
             the ifIndex (which identifies a unique addrMapName),
             points to a unique entry in the natAddrMapTable.
```

```
                Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natAddrPortBindEntry 11 }

natAddrPortBindSessions OBJECT-TYPE
    SYNTAX     Gauge32
    MAX-ACCESS read-only
    STATUS     deprecated
    DESCRIPTION
            "Number of sessions currently using this BIND.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natAddrPortBindEntry 12 }

natAddrPortBindMaxIdleTime OBJECT-TYPE
    SYNTAX     TimeTicks
    MAX-ACCESS read-only
    STATUS     deprecated

    DESCRIPTION
            "This object indicates the maximum time for
             which this bind can be idle without any sessions
             attached to it.
             The value of this object is of relevance
             only for dynamic NAT.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natAddrPortBindEntry 13 }

natAddrPortBindCurrentIdleTime OBJECT-TYPE
    SYNTAX     TimeTicks
    MAX-ACCESS read-only
    STATUS     deprecated
    DESCRIPTION
            "At any given instance, this object indicates the
             time that this bind has been idle without any sessions
             attached to it.

             The value of this object is of relevance
             only for dynamic NAT.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natAddrPortBindEntry 14 }

natAddrPortBindInTranslates OBJECT-TYPE
    SYNTAX     Counter64
    MAX-ACCESS read-only
    STATUS     deprecated
```

```
    DESCRIPTION
            "The number of inbound packets that were translated as
             per this bind entry.

             Discontinuities in the value of this counter can occur
             at reinitialization of the management system and at
             other times, as indicated by the value of
             ifCounterDiscontinuityTime on the relevant interface.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natAddrPortBindEntry 15 }

natAddrPortBindOutTranslates OBJECT-TYPE
    SYNTAX     Counter64
    MAX-ACCESS read-only
    STATUS     deprecated
    DESCRIPTION
            "The number of outbound packets that were translated as
             per this bind entry.

             Discontinuities in the value of this counter can occur
             at reinitialization of the management system and at
             other times, as indicated by the value of
             ifCounterDiscontinuityTime on the relevant interface.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natAddrPortBindEntry 16 }

--
-- The Session Table
--

natSessionTable OBJECT-TYPE
    SYNTAX     SEQUENCE OF NatSessionEntry
    MAX-ACCESS not-accessible
    STATUS     deprecated
    DESCRIPTION
            "The (conceptual) table containing one entry for each
             NAT session currently active on this NAT device.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natMIBObjects 9 }

natSessionEntry OBJECT-TYPE
    SYNTAX     NatSessionEntry
    MAX-ACCESS not-accessible
    STATUS     deprecated
    DESCRIPTION
```

```
            "An entry (conceptual row) containing information
             about an active NAT session on this NAT device.
             These entries are lost upon agent restart.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    INDEX   { ifIndex, natSessionIndex }
    ::= { natSessionTable 1 }

NatSessionEntry ::= SEQUENCE {
    natSessionIndex                     NatSessionId,
    natSessionPrivateSrcEPBindId        NatBindIdOrZero,
    natSessionPrivateSrcEPBindMode      NatBindMode,
    natSessionPrivateDstEPBindId        NatBindIdOrZero,
    natSessionPrivateDstEPBindMode      NatBindMode,
    natSessionDirection                 INTEGER,
    natSessionUpTime                    TimeTicks,
    natSessionAddrMapIndex              NatAddrMapId,
    natSessionProtocolType              NatProtocolType,
    natSessionPrivateAddrType           InetAddressType,
    natSessionPrivateSrcAddr            InetAddress,
    natSessionPrivateSrcPort            InetPortNumber,
    natSessionPrivateDstAddr            InetAddress,
    natSessionPrivateDstPort            InetPortNumber,
    natSessionPublicAddrType            InetAddressType,
    natSessionPublicSrcAddr             InetAddress,
    natSessionPublicSrcPort             InetPortNumber,
    natSessionPublicDstAddr             InetAddress,
    natSessionPublicDstPort             InetPortNumber,
    natSessionMaxIdleTime               TimeTicks,
    natSessionCurrentIdleTime           TimeTicks,
    natSessionInTranslates              Counter64,
    natSessionOutTranslates             Counter64
}

natSessionIndex OBJECT-TYPE
    SYNTAX     NatSessionId
    MAX-ACCESS not-accessible
    STATUS     deprecated
    DESCRIPTION
            "The session ID for this NAT session.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natSessionEntry 1 }

natSessionPrivateSrcEPBindId OBJECT-TYPE
    SYNTAX     NatBindIdOrZero
    MAX-ACCESS read-only
    STATUS     deprecated
```

```
    DESCRIPTION
            "The bind ID associated between private and public
             source endpoints.  In the case of Symmetric-NAT,
             this should be set to zero.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natSessionEntry 2 }

natSessionPrivateSrcEPBindMode OBJECT-TYPE
    SYNTAX     NatBindMode
    MAX-ACCESS read-only
    STATUS     deprecated
    DESCRIPTION
            "This object indicates whether the bind indicated
             by the object natSessionPrivateSrcEPBindId
             is an address bind or an address port bind.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natSessionEntry 3 }

natSessionPrivateDstEPBindId OBJECT-TYPE
    SYNTAX     NatBindIdOrZero
    MAX-ACCESS read-only
    STATUS     deprecated
    DESCRIPTION
            "The bind ID associated between private and public
             destination endpoints.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natSessionEntry 4 }

natSessionPrivateDstEPBindMode OBJECT-TYPE
    SYNTAX     NatBindMode
    MAX-ACCESS read-only
    STATUS     deprecated
    DESCRIPTION
            "This object indicates whether the bind indicated
             by the object natSessionPrivateDstEPBindId
             is an address bind or an address port bind.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natSessionEntry 5 }

natSessionDirection OBJECT-TYPE
    SYNTAX     INTEGER {
                   inbound (1),
                   outbound (2)
               }
```

```
    MAX-ACCESS read-only
    STATUS     deprecated
    DESCRIPTION
            "The direction of this session with respect to the
             local network.  'inbound' indicates that this session
             was initiated from the public network into the private
             network.  'outbound' indicates that this session was
             initiated from the private network into the public
             network.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natSessionEntry 6 }

natSessionUpTime OBJECT-TYPE
    SYNTAX     TimeTicks
    MAX-ACCESS read-only
    STATUS     deprecated
    DESCRIPTION
            "The uptime of this session in hundredths of a
             second.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natSessionEntry 7 }

natSessionAddrMapIndex OBJECT-TYPE
    SYNTAX     NatAddrMapId
    MAX-ACCESS read-only
    STATUS     deprecated
    DESCRIPTION
            "This object is a pointer to the natAddrMapTable entry
             (and the parameters of that entry) used in
             creating this session.  This object, in conjunction with
             the ifIndex (which identifies a unique addrMapName),
             points to a unique entry in the natAddrMapTable.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natSessionEntry 8 }

natSessionProtocolType OBJECT-TYPE
    SYNTAX     NatProtocolType
    MAX-ACCESS read-only
    STATUS     deprecated
    DESCRIPTION
            "The protocol type of this session.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natSessionEntry 9 }
```

```
natSessionPrivateAddrType OBJECT-TYPE
    SYNTAX      InetAddressType
    MAX-ACCESS  read-only
    STATUS      deprecated
    DESCRIPTION
            "This object specifies the address type used for
             natSessionPrivateSrcAddr and natSessionPrivateDstAddr.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natSessionEntry 10 }

natSessionPrivateSrcAddr OBJECT-TYPE
    SYNTAX     InetAddress
    MAX-ACCESS read-only
    STATUS     deprecated
    DESCRIPTION
            "The source IP address of the session endpoint that
             lies in the private network.

             The value of this object must be zero only when the
             natSessionPrivateSrcEPBindId object has a zero value.
             When the value of this object is zero, the NAT session
             lookup will match any IP address to this field.

             The type of this address is determined by the value of
             the natSessionPrivateAddrType object.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natSessionEntry 11 }

natSessionPrivateSrcPort OBJECT-TYPE
    SYNTAX     InetPortNumber
    MAX-ACCESS read-only
    STATUS     deprecated
    DESCRIPTION
            "For a protocol value of TCP or UDP, this object
             represents the source port in the first packet of a
             session while in a private realm.  On the other hand, when
             the protocol is ICMP, a NAT session is created only for
             query/response-type ICMP messages such as ICMP echo,
             Timestamp, and Information request messages, and this
             object represents the private-realm specific identifier
             in the ICMP message, as defined in RFC 792 for ICMPv4
             and in RFC 4443 for ICMPv6.

             The value of this object must be zero when the
             natSessionPrivateSrcEPBindId object has zero value
             and value of natSessionPrivateSrcEPBindMode is
```

```
              addressPortBind(2).  In such a case, the NAT session
              lookup will match any port number to this field.

              The value of this object must be zero when the object
              is not a representative field (SrcPort, DstPort, or
              ICMP identifier) of the session tuple in either the
              public realm or the private realm.
              Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natSessionEntry 12 }

natSessionPrivateDstAddr OBJECT-TYPE
    SYNTAX     InetAddress
    MAX-ACCESS read-only
    STATUS     deprecated
    DESCRIPTION
            "The destination IP address of the session endpoint that
             lies in the private network.

             The value of this object must be zero when the
             natSessionPrivateDstEPBindId object has a zero value.
             In such a scenario, the NAT session lookup will match
             any IP address to this field.

             The type of this address is determined by the value of
             the natSessionPrivateAddrType object.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natSessionEntry 13 }

natSessionPrivateDstPort OBJECT-TYPE
    SYNTAX     InetPortNumber
    MAX-ACCESS read-only
    STATUS     deprecated
    DESCRIPTION
            "When the value of protocol is TCP or UDP, this object
             represents the destination port in the first packet
             of session while in private-realm.  On the other hand,
             when the protocol is ICMP, this object is not relevant
             and should be set to zero.

             The value of this object must be zero when the
             natSessionPrivateDstEPBindId object has a zero
             value and natSessionPrivateDstEPBindMode is set to
             addressPortBind(2).  In such a case, the NAT session
             lookup will match any port number to this field.

             The value of this object must be zero when the object
```

```
                is not a representative field (SrcPort, DstPort, or
                ICMP identifier) of the session tuple in either the
                public realm or the private realm.
                Deprecated in favor of NATV2-MIB."
        REFERENCE   "RFC 7658, RFC 7659"
        ::= { natSessionEntry 14 }

    natSessionPublicAddrType OBJECT-TYPE
        SYNTAX      InetAddressType
        MAX-ACCESS  read-only
        STATUS      deprecated
        DESCRIPTION
                "This object specifies the address type used for
                natSessionPublicSrcAddr and natSessionPublicDstAddr.
                Deprecated in favor of NATV2-MIB."
        REFERENCE   "RFC 7658, RFC 7659"
        ::= { natSessionEntry 15 }

    natSessionPublicSrcAddr OBJECT-TYPE
        SYNTAX     InetAddress
        MAX-ACCESS read-only
        STATUS     deprecated
        DESCRIPTION
                "The source IP address of the session endpoint that
                lies in the public network.

                The value of this object must be zero when the
                natSessionPrivateSrcEPBindId object has a zero value.
                In such a scenario, the NAT session lookup will match
                any IP address to this field.

                The type of this address is determined by the value of
                the natSessionPublicAddrType object.
                Deprecated in favor of NATV2-MIB."
        REFERENCE   "RFC 7658, RFC 7659"
        ::= { natSessionEntry 16 }

    natSessionPublicSrcPort OBJECT-TYPE
        SYNTAX     InetPortNumber
        MAX-ACCESS read-only
        STATUS     deprecated
        DESCRIPTION
                "When the protocol value is TCP or UDP, this object
                represents the source port in the first packet of
                session while in public-realm.  On the other hand, when
                protocol is ICMP, a NAT session is created only for
                query/response-type ICMP messages such as ICMP echo,
                Timestamp, and Information request messages, and this
```

```
                object represents the public-realm-specific identifier
                in the ICMP message, as defined in RFC 792 for ICMPv4
                and in RFC 4443 for ICMPv6.

                The value of this object must be zero when the
                natSessionPrivateSrcEPBindId object has a zero value
                and natSessionPrivateSrcEPBindMode is set to
                addressPortBind(2).  In such a scenario, the NAT
                session lookup will match any port number to this
                field.

                The value of this object must be zero when the object
                is not a representative field (SrcPort, DstPort, or
                ICMP identifier) of the session tuple in either the
                public realm or the private realm.
                Deprecated in favor of NATV2-MIB."
        REFERENCE   "RFC 7658, RFC 7659"
        ::= { natSessionEntry 17 }

    natSessionPublicDstAddr OBJECT-TYPE
        SYNTAX     InetAddress
        MAX-ACCESS read-only
        STATUS     deprecated
        DESCRIPTION
                "The destination IP address of the session endpoint that
                lies in the public network.

                The value of this object must be non-zero when the
                natSessionPrivateDstEPBindId object has a non-zero
                value.  If the value of this object and the
                corresponding natSessionPrivateDstEPBindId object value
                are zero, then the NAT session lookup will match any IP
                address to this field.

                The type of this address is determined by the value of
                the natSessionPublicAddrType object.
                Deprecated in favor of NATV2-MIB."
        REFERENCE   "RFC 7658, RFC 7659"
        ::= { natSessionEntry 18 }

    natSessionPublicDstPort OBJECT-TYPE
        SYNTAX     InetPortNumber
        MAX-ACCESS read-only
        STATUS     deprecated
        DESCRIPTION
                "When the protocol value is TCP or UDP, this object
                represents the destination port in the first packet of
                session while in the public realm.  On the other hand, when
```

```
                the protocol is ICMP, this object is not relevant for
                translation and should be zero.

                The value of this object must be zero when the
                natSessionPrivateDstEPBindId object has a zero value
                and natSessionPrivateDstEPBindMode is
                addressPortBind(2).  In such a scenario, the NAT
                session lookup will match any port number to this
                field.

                The value of this object must be zero when the object
                is not a representative field (SrcPort, DstPort, or
                ICMP identifier) of the session tuple in either the
                public realm or the private realm.
                Deprecated in favor of NATV2-MIB."
        REFERENCE   "RFC 7658, RFC 7659"
        ::= { natSessionEntry 19 }

    natSessionMaxIdleTime OBJECT-TYPE
        SYNTAX     TimeTicks
        MAX-ACCESS read-only
        STATUS     deprecated
        DESCRIPTION
                "The max time for which this session can be idle
                 without detecting a packet.
                 Deprecated in favor of NATV2-MIB."
        REFERENCE   "RFC 7658, RFC 7659"
        ::= { natSessionEntry 20 }

    natSessionCurrentIdleTime OBJECT-TYPE
        SYNTAX     TimeTicks
        MAX-ACCESS read-only
        STATUS     deprecated
        DESCRIPTION
                "The time since a packet belonging to this session was
                 last detected.
                 Deprecated in favor of NATV2-MIB."
        REFERENCE   "RFC 7658, RFC 7659"
        ::= { natSessionEntry 21 }

    natSessionInTranslates OBJECT-TYPE
        SYNTAX     Counter64
        MAX-ACCESS read-only
        STATUS     deprecated
        DESCRIPTION
                "The number of inbound packets that were translated for
                 this session.
```

```
                Discontinuities in the value of this counter can occur
                at reinitialization of the management system and at
                other times, as indicated by the value of
                ifCounterDiscontinuityTime on the relevant interface.
                Deprecated in favor of NATV2-MIB."
        REFERENCE   "RFC 7658, RFC 7659"
        ::= { natSessionEntry 22 }

    natSessionOutTranslates OBJECT-TYPE
        SYNTAX     Counter64
        MAX-ACCESS read-only
        STATUS     deprecated
        DESCRIPTION
                "The number of outbound packets that were translated for
                this session.

                Discontinuities in the value of this counter can occur
                at reinitialization of the management system and at
                other times, as indicated by the value of
                ifCounterDiscontinuityTime on the relevant interface.
                Deprecated in favor of NATV2-MIB."
        REFERENCE   "RFC 7658, RFC 7659"
        ::= { natSessionEntry 23 }

    --
    -- The Protocol table
    --

    natProtocolTable OBJECT-TYPE
        SYNTAX     SEQUENCE OF NatProtocolEntry
        MAX-ACCESS not-accessible
        STATUS     deprecated
        DESCRIPTION
                "The (conceptual) table containing per-protocol NAT
                statistics.
                Deprecated in favor of NATV2-MIB."
        REFERENCE   "RFC 7658, RFC 7659"
        ::= { natMIBObjects 10 }

    natProtocolEntry OBJECT-TYPE
        SYNTAX     NatProtocolEntry
        MAX-ACCESS not-accessible
        STATUS     deprecated
        DESCRIPTION
                "An entry (conceptual row) containing NAT statistics
                pertaining to a particular protocol.
                Deprecated in favor of NATV2-MIB."
        REFERENCE   "RFC 7658, RFC 7659"
```

```
    INDEX   { natProtocol }
    ::= { natProtocolTable 1 }

NatProtocolEntry ::= SEQUENCE {
    natProtocol                 NatProtocolType,
    natProtocolInTranslates     Counter64,
    natProtocolOutTranslates    Counter64,
    natProtocolDiscards         Counter64
}

natProtocol    OBJECT-TYPE
    SYNTAX     NatProtocolType
    MAX-ACCESS not-accessible
    STATUS     deprecated
    DESCRIPTION
            "This object represents the protocol pertaining to which
             parameters are reported.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natProtocolEntry 1 }

natProtocolInTranslates OBJECT-TYPE
    SYNTAX     Counter64
    MAX-ACCESS read-only
    STATUS     deprecated
    DESCRIPTION
            "The number of inbound packets pertaining to the protocol
             identified by natProtocol that underwent NAT.

             Discontinuities in the value of this counter can occur
             at reinitialization of the management system and at
             other times, as indicated by the value of
             ifCounterDiscontinuityTime on the relevant interface.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natProtocolEntry 2 }

natProtocolOutTranslates OBJECT-TYPE
    SYNTAX     Counter64
    MAX-ACCESS read-only
    STATUS     deprecated
    DESCRIPTION
            "The number of outbound packets pertaining to the
             protocol identified by natProtocol that underwent NAT.

             Discontinuities in the value of this counter can occur
             at reinitialization of the management system and at
             other times, as indicated by the value of
```

```
                ifCounterDiscontinuityTime on the relevant interface.
                Deprecated in favor of NATV2-MIB."
        REFERENCE   "RFC 7658, RFC 7659"
        ::= { natProtocolEntry 3 }

natProtocolDiscards OBJECT-TYPE
        SYNTAX     Counter64
        MAX-ACCESS read-only
        STATUS     deprecated
        DESCRIPTION
                "The number of packets pertaining to the protocol
                identified by natProtocol that had to be
                rejected/dropped due to lack of resources.  These
                rejections could be due to session timeout, resource
                unavailability, lack of address space, etc.

                Discontinuities in the value of this counter can occur
                at reinitialization of the management system and at
                other times, as indicated by the value of
                ifCounterDiscontinuityTime on the relevant interface.
                Deprecated in favor of NATV2-MIB."
        REFERENCE   "RFC 7658, RFC 7659"
         ::= { natProtocolEntry 4 }

--
-- Notifications section
--

natMIBNotifications OBJECT IDENTIFIER ::= { natMIB 0 }

--
-- Notifications
--

natPacketDiscard NOTIFICATION-TYPE
        OBJECTS { ifIndex }
        STATUS  deprecated
        DESCRIPTION
                "This notification is generated when IP packets are
                discarded by the NAT function; e.g., due to lack of
                mapping space when NAT is out of addresses or ports.

                Note that the generation of natPacketDiscard
                notifications is throttled by the agent, as specified
                by the 'natNotifThrottlingInterval' object.
                Deprecated in favor of NATV2-MIB."
        REFERENCE   "RFC 7658, RFC 7659"
        ::= { natMIBNotifications 1 }
```

```
--
-- Conformance information.
--

natMIBConformance OBJECT IDENTIFIER ::= { natMIB 2 }

natMIBGroups      OBJECT IDENTIFIER ::= { natMIBConformance 1 }
natMIBCompliances OBJECT IDENTIFIER ::= { natMIBConformance 2 }

--
-- Units of conformance
--

natConfigGroup OBJECT-GROUP
    OBJECTS { natInterfaceRealm,
              natInterfaceServiceType,
              natInterfaceStorageType,
              natInterfaceRowStatus,
              natAddrMapName,
              natAddrMapEntryType,
              natAddrMapTranslationEntity,
              natAddrMapLocalAddrType,
              natAddrMapLocalAddrFrom,
              natAddrMapLocalAddrTo,
              natAddrMapLocalPortFrom,
              natAddrMapLocalPortTo,
              natAddrMapGlobalAddrType,
              natAddrMapGlobalAddrFrom,
              natAddrMapGlobalAddrTo,
              natAddrMapGlobalPortFrom,
              natAddrMapGlobalPortTo,
              natAddrMapProtocol,
              natAddrMapStorageType,
              natAddrMapRowStatus,
              natBindDefIdleTimeout,
              natUdpDefIdleTimeout,
              natIcmpDefIdleTimeout,
              natOtherDefIdleTimeout,
              natTcpDefIdleTimeout,
              natTcpDefNegTimeout,
              natNotifThrottlingInterval }
    STATUS  deprecated
    DESCRIPTION
            "A collection of configuration-related information
             required to support management of devices supporting
             NAT.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
```

```
    ::= { natMIBGroups 1 }

natTranslationGroup OBJECT-GROUP
    OBJECTS { natAddrBindNumberOfEntries,
              natAddrBindGlobalAddrType,
              natAddrBindGlobalAddr,
              natAddrBindId,
              natAddrBindTranslationEntity,
              natAddrBindType,
              natAddrBindMapIndex,
              natAddrBindSessions,
              natAddrBindMaxIdleTime,
              natAddrBindCurrentIdleTime,
              natAddrBindInTranslates,
              natAddrBindOutTranslates,
              natAddrPortBindNumberOfEntries,
              natAddrPortBindGlobalAddrType,
              natAddrPortBindGlobalAddr,
              natAddrPortBindGlobalPort,
              natAddrPortBindId,
              natAddrPortBindTranslationEntity,
              natAddrPortBindType,
              natAddrPortBindMapIndex,
              natAddrPortBindSessions,
              natAddrPortBindMaxIdleTime,
              natAddrPortBindCurrentIdleTime,
              natAddrPortBindInTranslates,
              natAddrPortBindOutTranslates,
              natSessionPrivateSrcEPBindId,
              natSessionPrivateSrcEPBindMode,
              natSessionPrivateDstEPBindId,
              natSessionPrivateDstEPBindMode,
              natSessionDirection,
              natSessionUpTime,
              natSessionAddrMapIndex,
              natSessionProtocolType,
              natSessionPrivateAddrType,
              natSessionPrivateSrcAddr,
              natSessionPrivateSrcPort,
              natSessionPrivateDstAddr,
              natSessionPrivateDstPort,
              natSessionPublicAddrType,
              natSessionPublicSrcAddr,
              natSessionPublicSrcPort,
              natSessionPublicDstAddr,
              natSessionPublicDstPort,
              natSessionMaxIdleTime,
              natSessionCurrentIdleTime,
```

```
                natSessionInTranslates,
                natSessionOutTranslates }
    STATUS  deprecated
    DESCRIPTION
            "A collection of BIND-related objects required to support
             management of devices supporting NAT.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natMIBGroups 2 }

natStatsInterfaceGroup OBJECT-GROUP
    OBJECTS { natInterfaceInTranslates,
              natInterfaceOutTranslates,
              natInterfaceDiscards }
    STATUS  deprecated
    DESCRIPTION
            "A collection of NAT statistics associated with the
             interface on which NAT is configured, to aid
             troubleshooting/monitoring of the NAT operation.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natMIBGroups 3 }

natStatsProtocolGroup OBJECT-GROUP
    OBJECTS { natProtocolInTranslates,
              natProtocolOutTranslates,
              natProtocolDiscards }
    STATUS  deprecated
    DESCRIPTION
            "A collection of protocol-specific NAT statistics,
             to aid troubleshooting/monitoring of NAT operation.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natMIBGroups 4 }

natStatsAddrMapGroup OBJECT-GROUP
    OBJECTS { natAddrMapInTranslates,
              natAddrMapOutTranslates,
              natAddrMapDiscards,
              natAddrMapAddrUsed }
    STATUS  deprecated
    DESCRIPTION
            "A collection of address-map-specific NAT statistics,
             to aid troubleshooting/monitoring of NAT operation.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natMIBGroups 5 }
```

```
natMIBNotificationGroup NOTIFICATION-GROUP
    NOTIFICATIONS { natPacketDiscard }
    STATUS        deprecated
    DESCRIPTION
            "A collection of notifications generated by
            devices supporting this MIB.
             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
    ::= { natMIBGroups 6 }

--
-- Compliance statements
--

natMIBFullCompliance MODULE-COMPLIANCE
    STATUS  deprecated
    DESCRIPTION
            "When this MIB is implemented with support for
             read-create, then such an implementation can claim
             full compliance.  Such devices can then be both
             monitored and configured with this MIB.

             The following index objects cannot be added as OBJECT
             clauses but nevertheless have the compliance
             requirements:

             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
             -- OBJECT  natAddrBindLocalAddrType
             -- SYNTAX  InetAddressType { ipv4(1), ipv6(2) }
             -- DESCRIPTION
             --         "An implementation is required to support
             --          global IPv4 and/or IPv6 addresses, depending
             --          on its support for IPv4 and IPv6."

             -- OBJECT  natAddrBindLocalAddr
             -- SYNTAX  InetAddress (SIZE(4|16))
             -- DESCRIPTION
             --         "An implementation is required to support
             --          global IPv4 and/or IPv6 addresses, depending
             --          on its support for IPv4 and IPv6."

             -- OBJECT  natAddrPortBindLocalAddrType
             -- SYNTAX  InetAddressType { ipv4(1), ipv6(2) }
             -- DESCRIPTION
             --         "An implementation is required to support
             --          global IPv4 and/or IPv6 addresses, depending
             --          on its support for IPv4 and IPv6."
```

```
            -- OBJECT  natAddrPortBindLocalAddr
            -- SYNTAX  InetAddress (SIZE(4|16))
            -- DESCRIPTION
            --          "An implementation is required to support
            --           global IPv4 and/or IPv6 addresses, depending
            --           on its support for IPv4 and IPv6."

    MODULE IF-MIB -- The interfaces MIB, RFC2863
      MANDATORY-GROUPS {
        ifCounterDiscontinuityGroup
      }

    MODULE  -- this module
      MANDATORY-GROUPS { natConfigGroup, natTranslationGroup,
                         natStatsInterfaceGroup }

      GROUP       natStatsProtocolGroup
      DESCRIPTION
              "This group is optional."
      GROUP       natStatsAddrMapGroup
      DESCRIPTION
              "This group is optional."
      GROUP       natMIBNotificationGroup
      DESCRIPTION
              "This group is optional."

      OBJECT  natAddrMapLocalAddrType
      SYNTAX  InetAddressType { ipv4(1), ipv6(2) }
      DESCRIPTION
             "An implementation is required to support global IPv4
              and/or IPv6 addresses, depending on its support
              for IPv4 and IPv6."

      OBJECT  natAddrMapLocalAddrFrom
      SYNTAX  InetAddress (SIZE(4|16))
      DESCRIPTION
             "An implementation is required to support global IPv4
              and/or IPv6 addresses, depending on its support
              for IPv4 and IPv6."

      OBJECT  natAddrMapLocalAddrTo
      SYNTAX  InetAddress (SIZE(4|16))
      DESCRIPTION
             "An implementation is required to support global IPv4
              and/or IPv6 addresses, depending on its support
              for IPv4 and IPv6."

      OBJECT  natAddrMapGlobalAddrType
```

```
      SYNTAX  InetAddressType { ipv4(1), ipv6(2) }
      DESCRIPTION
              "An implementation is required to support global IPv4
               and/or IPv6 addresses, depending on its support
               for IPv4 and IPv6."

      OBJECT  natAddrMapGlobalAddrFrom
      SYNTAX  InetAddress (SIZE(4|16))
      DESCRIPTION
              "An implementation is required to support global IPv4
               and/or IPv6 addresses, depending on its support
               for IPv4 and IPv6."

      OBJECT  natAddrMapGlobalAddrTo
      SYNTAX  InetAddress (SIZE(4|16))
      DESCRIPTION
              "An implementation is required to support global IPv4
               and/or IPv6 addresses, depending on its support
               for IPv4 and IPv6."

      OBJECT  natAddrBindGlobalAddrType
      SYNTAX  InetAddressType { ipv4(1), ipv6(2) }
      DESCRIPTION
              "An implementation is required to support global IPv4
               and/or IPv6 addresses, depending on its support
               for IPv4 and IPv6."

      OBJECT  natAddrBindGlobalAddr
      SYNTAX  InetAddress (SIZE(4|16))
      DESCRIPTION
              "An implementation is required to support global IPv4
               and/or IPv6 addresses, depending on its support
               for IPv4 and IPv6."

      OBJECT  natAddrPortBindGlobalAddrType
      SYNTAX  InetAddressType { ipv4(1), ipv6(2) }
      DESCRIPTION
              "An implementation is required to support global IPv4
               and/or IPv6 addresses, depending on its support
               for IPv4 and IPv6."

      OBJECT  natAddrPortBindGlobalAddr
      SYNTAX  InetAddress (SIZE(4|16))
      DESCRIPTION
              "An implementation is required to support global IPv4
               and/or IPv6 addresses, depending on its support
               for IPv4 and IPv6."
```

```
      OBJECT  natSessionPrivateAddrType
      SYNTAX  InetAddressType { ipv4(1), ipv6(2) }
      DESCRIPTION
              "An implementation is required to support global IPv4
               and/or IPv6 addresses, depending on its support
               for IPv4 and IPv6."

      OBJECT  natSessionPrivateSrcAddr
      SYNTAX  InetAddress (SIZE(4|16))
      DESCRIPTION
              "An implementation is required to support global IPv4
               and/or IPv6 addresses, depending on its support
               for IPv4 and IPv6."


      OBJECT  natSessionPrivateDstAddr
      SYNTAX  InetAddress (SIZE(4|16))
      DESCRIPTION
              "An implementation is required to support global IPv4
               and/or IPv6 addresses, depending on its support
               for IPv4 and IPv6."

      OBJECT  natSessionPublicAddrType
      SYNTAX  InetAddressType { ipv4(1), ipv6(2) }
      DESCRIPTION
              "An implementation is required to support global IPv4
               and/or IPv6 addresses, depending on its support
               for IPv4 and IPv6."

      OBJECT  natSessionPublicSrcAddr
      SYNTAX  InetAddress (SIZE(4|16))
      DESCRIPTION
              "An implementation is required to support global IPv4
               and/or IPv6 addresses, depending on its support
               for IPv4 and IPv6."

      OBJECT  natSessionPublicDstAddr
      SYNTAX  InetAddress (SIZE(4|16))
      DESCRIPTION
              "An implementation is required to support global IPv4
               and/or IPv6 addresses, depending on its support
               for IPv4 and IPv6."

    ::= { natMIBCompliances 1 }

natMIBReadOnlyCompliance MODULE-COMPLIANCE
    STATUS  deprecated
    DESCRIPTION
```

```
            "When this MIB is implemented without support for
             read-create (i.e., in read-only mode), then such an
             implementation can claim read-only compliance.
             Such a device can then be monitored but cannot be
             configured with this MIB.

             The following index objects cannot be added as OBJECT
             clauses but nevertheless have the compliance
             requirements:

             Deprecated in favor of NATV2-MIB."
    REFERENCE   "RFC 7658, RFC 7659"
             -- OBJECT  natAddrBindLocalAddrType
             -- SYNTAX  InetAddressType { ipv4(1), ipv6(2) }
             -- DESCRIPTION
             --          "An implementation is required to support
             --           global IPv4 and/or IPv6 addresses, depending
             --           on its support for IPv4 and IPv6."

             -- OBJECT  natAddrBindLocalAddr
             -- SYNTAX  InetAddress (SIZE(4|16))

             -- DESCRIPTION
             --          "An implementation is required to support
             --           global IPv4 and/or IPv6 addresses, depending
             --           on its support for IPv4 and IPv6."

             -- OBJECT  natAddrPortBindLocalAddrType
             -- SYNTAX  InetAddressType { ipv4(1), ipv6(2) }
             -- DESCRIPTION
             --          "An implementation is required to support
             --           global IPv4 and/or IPv6 addresses, depending
             --           on its support for IPv4 and IPv6."
             -- OBJECT  natAddrPortBindLocalAddr
             -- SYNTAX  InetAddress (SIZE(4|16))
             -- DESCRIPTION
             --          "An implementation is required to support
             --           global IPv4 and/or IPv6 addresses, depending
             --           on its support for IPv4 and IPv6."

    MODULE IF-MIB -- The interfaces MIB, RFC 2863
      MANDATORY-GROUPS {
        ifCounterDiscontinuityGroup
      }

    MODULE  -- this module
      MANDATORY-GROUPS { natConfigGroup, natTranslationGroup,
                         natStatsInterfaceGroup }
```

```
    GROUP       natStatsProtocolGroup
    DESCRIPTION
            "This group is optional."
    GROUP       natStatsAddrMapGroup
    DESCRIPTION
            "This group is optional."
    GROUP       natMIBNotificationGroup
    DESCRIPTION
            "This group is optional."
    OBJECT natInterfaceRowStatus
    SYNTAX RowStatus { active(1) }
    MIN-ACCESS   read-only
    DESCRIPTION
           "Write access is not required, and active is the only
            status that needs to be supported."

    OBJECT  natAddrMapLocalAddrType
    SYNTAX  InetAddressType { ipv4(1), ipv6(2) }
    MIN-ACCESS   read-only
    DESCRIPTION
           "Write access is not required.  An implementation is
            required to support global IPv4 and/or IPv6 addresses,
            depending on its support for IPv4 and IPv6."

    OBJECT  natAddrMapLocalAddrFrom
    SYNTAX  InetAddress (SIZE(4|16))
    MIN-ACCESS   read-only
    DESCRIPTION
           "Write access is not required.  An implementation is
            required to support global IPv4 and/or IPv6 addresses,
            depending on its support for IPv4 and IPv6."

    OBJECT  natAddrMapLocalAddrTo
    SYNTAX  InetAddress (SIZE(4|16))
    MIN-ACCESS   read-only
    DESCRIPTION
           "Write access is not required.  An implementation is
            required to support global IPv4 and/or IPv6 addresses,
            depending on its support for IPv4 and IPv6."

    OBJECT  natAddrMapGlobalAddrType
    SYNTAX  InetAddressType { ipv4(1), ipv6(2) }
    MIN-ACCESS   read-only
    DESCRIPTION
           "Write access is not required.  An implementation is
            required to support global IPv4 and/or IPv6 addresses,
            depending on its support for IPv4 and IPv6."
```

```
      OBJECT  natAddrMapGlobalAddrFrom
      SYNTAX  InetAddress (SIZE(4|16))
      MIN-ACCESS   read-only
      DESCRIPTION
              "Write access is not required.  An implementation is
               required to support global IPv4 and/or IPv6 addresses,
               depending on its support for IPv4 and IPv6."

      OBJECT  natAddrMapGlobalAddrTo
      SYNTAX  InetAddress (SIZE(4|16))
      MIN-ACCESS   read-only
      DESCRIPTION
              "Write access is not required.  An implementation is
               required to support global IPv4 and/or IPv6 addresses,
               depending on its support for IPv4 and IPv6."

      OBJECT natAddrMapRowStatus
      SYNTAX RowStatus { active(1) }
      MIN-ACCESS   read-only
      DESCRIPTION
              "Write access is not required, and active is the only
               status that needs to be supported."

      OBJECT  natAddrBindGlobalAddrType
      SYNTAX  InetAddressType { ipv4(1), ipv6(2) }
      DESCRIPTION
              "An implementation is required to support global IPv4
               and/or IPv6 addresses, depending on its support for
               IPv4 and IPv6."

      OBJECT  natAddrBindGlobalAddr
      SYNTAX  InetAddress (SIZE(4|16))
      DESCRIPTION
              "An implementation is required to support global IPv4
               and/or IPv6 addresses, depending on its support for
               IPv4 and IPv6."

      OBJECT  natAddrPortBindGlobalAddrType
      SYNTAX  InetAddressType { ipv4(1), ipv6(2) }
      DESCRIPTION
              "An implementation is required to support global IPv4
               and/or IPv6 addresses, depending on its support for
               IPv4 and IPv6."

      OBJECT  natAddrPortBindGlobalAddr
      SYNTAX  InetAddress (SIZE(4|16))
      DESCRIPTION
              "An implementation is required to support global IPv4
```

```
                and/or IPv6 addresses, depending on its support for
                IPv4 and IPv6."

        OBJECT  natSessionPrivateAddrType
        SYNTAX  InetAddressType { ipv4(1), ipv6(2) }
        DESCRIPTION
                "An implementation is required to support global IPv4
                 and/or IPv6 addresses, depending on its support for
                 IPv4 and IPv6."

        OBJECT  natSessionPrivateSrcAddr
        SYNTAX  InetAddress (SIZE(4|16))
        DESCRIPTION
                "An implementation is required to support global IPv4
                 and/or IPv6 addresses, depending on its support for
                 IPv4 and IPv6."

        OBJECT  natSessionPrivateDstAddr
        SYNTAX  InetAddress (SIZE(4|16))
        DESCRIPTION
                "An implementation is required to support global IPv4
                 and/or IPv6 addresses, depending on its support for
                 IPv4 and IPv6."

        OBJECT  natSessionPublicAddrType
        SYNTAX  InetAddressType { ipv4(1), ipv6(2) }
        DESCRIPTION
                "An implementation is required to support global IPv4
                 and/or IPv6 addresses, depending on its support for
                 IPv4 and IPv6."

        OBJECT  natSessionPublicSrcAddr
        SYNTAX  InetAddress (SIZE(4|16))
        DESCRIPTION
                "An implementation is required to support global IPv4
                 and/or IPv6 addresses, depending on its support for
                 IPv4 and IPv6."

        OBJECT  natSessionPublicDstAddr
        SYNTAX  InetAddress (SIZE(4|16))
        DESCRIPTION
                "An implementation is required to support global IPv4
                 and/or IPv6 addresses, depending on its support for
                 IPv4 and IPv6."

    ::= { natMIBCompliances 2 }

END
```

5. Security Considerations

All objects in this MIB module have been deprecated. As a result, the security considerations in [RFC7659] apply instead. Amongst other matters, these considerations cover the case where both this MIB module and NATV2-MIB are present. In fact, such a situation is unlikely because [RFC4008], as a MIB module oriented toward configuration, was overtaken by events and saw little implementation.

6. IANA Considerations

IANA has assigned object identifier 123 to the natMIB module, with prefix iso.org.dod.internet.mgmt.mib-2 in the Network Management Parameters registry [SMI-NUMBERS].

IANA has marked that identifier as DEPRECATED and updated the reference from [RFC4008] to the present document.

7. References

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