

Network Working Group
Internet-Draft
Obsoletes: [4008](#) (if approved)
Intended status: Standards Track
Expires: January 7, 2016

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July 6, 2015

Deprecation of MIB Module NAT-MIB (Managed Objects for Network Address
Translators (NAT))
draft-perrault-behave-deprecate-nat-mib-v1-06

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, NAT-MIB-V2, which responds to deficiencies found in module NAT-MIB and adds new capabilities.

This document obsoletes [RFC 4008](#). All [RFC 4008](#) MIB objects are included in this version unchanged with only the STATUS changed to deprecated.

Status of This Memo

This Internet-Draft is submitted in full conformance with the provisions of [BCP 78](#) and [BCP 79](#).

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This Internet-Draft will expire on January 7, 2016.

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Deprecation of NAT MIB v1

July 2015

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[1.](#) Introduction

RFC Editor NOTE: please replace all occurrences of RFCyyyy with the number assigned to this document, and all occurrences of RFCzzzz with the number assigned to [[I-D.ietf-behave-nat-mib-v2](#)].

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, NAT-MIB-V2, defined in [[I-D.ietf-behave-nat-mib-v2](#)]. NAT types and their characteristics are defined in [[RFC2663](#)]. Traditional NAT function, in particular is defined in [[RFC3022](#)].

Neither NAT-MIB nor NAT-MIB-V2 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 NAT-MIB-V2. [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 [\[I-D.ietf-behave-nat-mib-v2\]](#).

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 \[RFC3410\]](#).

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, [\[RFC2578\]](#), STD 58, [\[RFC2579\]](#) and STD 58, [\[RFC2580\]](#).

[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, 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 [\[I-D.ietf-behave-nat-mib-v2\]](#) [Section 2](#).

[4.](#) Definitions

This MIB module IMPORTs objects from [\[RFC2578\]](#), [\[RFC2579\]](#), [\[RFC2580\]](#), [\[RFC2863\]](#), [\[RFC3411\]](#), and [\[RFC4001\]](#). It also refers to information in RFCs [\[RFC0792\]](#), [\[RFC4443\]](#), and [\[RFC3413\]](#).

NAT-MIB DEFINITIONS ::= BEGIN

IMPORTS
MODULE-IDENTITY,

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```
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 "201506240000Z"

-- RFC Ed.: please set to publication date

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DESCRIPTION

"This MIB module defines the generic managed objects for NAT.

Copyright (C) The Internet Society (2015). This version of this MIB module is part of RFC yyyy; see the RFC itself for full legal notices."

-- RFC Ed.: replace yyyy with actual RFC number & remove this note"

REVISION "201506240000Z"

-- RFC Ed.: set to publication date

DESCRIPTION

"Deprecation of all objects, published as RFC yyyy.

See NAT-MIB-V2 in RFCzzzz for recommended replacement."

-- RFC Ed.: please replace yyyy with actual RFC number & set date.

-- Replace zzzz with number assigned to [[I-D.ietf-behave-nat-mib-v2](#)].

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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

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 NAT-MIB-V2."
    REFERENCE   "RFCyyyy, RFCzzzz"
    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 NAT-MIB-V2."
    REFERENCE   "RFCyyyy, RFCzzzz"
    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 NAT-MIB-V2."

```


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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

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 }

--

-- Address Bind and Port Bind related NAT configuration

--

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 re-initialization of the management system.

Deprecated in favor of NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

DEFVAL { 0 }

::= { natDefTimeouts 1 }

--

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-- 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 re-initialization of the management system.

Deprecated in favor of NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

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 re-initialization of the management system.

Deprecated in favor of NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

DEFVAL { 300 }

```

        ::= { natDefTimeouts 3 }

--
-- Other protocol parameters
--

natOtherDefIdleTimeout OBJECT-TYPE
    SYNTAX      Unsigned32  (1..4294967295)
    UNITS       "seconds"

```

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```

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 re-initialization of the management
    system.
    Deprecated in favor of NAT-MIB-V2."
REFERENCE   "RFCyyyy, RFCzzzz"
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 re-initialization of the management system.

Deprecated in favor of NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

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 re-initialization of the management system.

Deprecated in favor of NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

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 re-initialization of the management system.

The actual transmission of notifications is controlled via the MIB modules in [RFC 3413](#).

Deprecated in favor of NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

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```
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 NAT-MIB-V2."
    REFERENCE    "RFCyyyy, RFCzzzz"
    ::= { 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 NAT-MIB-V2."
    REFERENCE   "RFCyyyy, RFCzzzz"
    INDEX       { ifIndex }
    ::= { natInterfaceTable 1 }

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

```

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}

```

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 NAT-MIB-V2."
REFERENCE    "RFCyyyy, RFCzzzz"
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 NAT-MIB-V2."
    REFERENCE   "RFCyyyy, RFCzzzz"
    ::= { 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 NAT-MIB-V2."
    REFERENCE   "RFCyyyy, RFCzzzz"
    ::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz. Textual Conventions for SMIV2, [Section 2](#)."

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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz. Textual Conventions for SMIV2,
 [Section 2](#)."

::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

INDEX { ifIndex, natAddrMapIndex }

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::= { 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 NAT-MIB-V2."
    REFERENCE   "RFCyyyy, RFCzzzz"
    ::= { 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 NAT-MIB-V2."

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REFERENCE "RFCyyyy, RFCzzzz"
::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"
::= { natAddrMapEntry 3 }

natAddrMapTranslationEntity OBJECT-TYPE

SYNTAX NatTranslationEntity
MAX-ACCESS read-create
STATUS deprecated
DESCRIPTION

"The end-point 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 NATPT are configured on a public interface for outbound sessions, effecting translation of source end-point. 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 end-point 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { natAddrMapEntry 4 }

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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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"
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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"
 ::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"
 ::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"
 ::= { 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 static address map.

Discontinuities in the value of this counter can occur at reinitialization of the management system and at

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other times, as indicated by the value of
ifCounterDiscontinuityTime on the relevant interface.
Deprecated in favor of NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"
::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"
::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz. Textual Conventions for
SMIv2, [Section 2](#)."
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 NAT-MIB-V2."
REFERENCE   "RFCyyyy, RFCzzzz. Textual Conventions for
            SMIV2, Section 2."
 ::= { 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 NAT-MIB-V2."
    REFERENCE   "RFCyyyy, RFCzzzz"
    ::= { 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 NAT-MIB-V2."
    REFERENCE   "RFCyyyy, RFCzzzz"
    ::= { 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 which may create variables with more than 128 subidentifiers. Implementers of this table must be careful not to create entries that would result in OIDs which exceed the 128 subidentifier limit.

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Otherwise, the information cannot be accessed using SNMPv1, SNMPv2c or SNMPv3.

Deprecated in favor of NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

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 NAT-MIB-V2."
REFERENCE "RFCyyyy, RFCzzzz"
::= { 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 NAT-MIB-V2."
REFERENCE "RFCyyyy, RFCzzzz"
::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"
::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { 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 which
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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { 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) which 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { 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 NAT-MIB-V2."
REFERENCE    "RFCyyyy, RFCzzzz"
::= { 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 NAT-MIB-V2."
REFERENCE    "RFCyyyy, RFCzzzz"
::= { 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 NAT-MIB-V2."
REFERENCE    "RFCyyyy, RFCzzzz"
::= { 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 NAT-MIB-V2."

```

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```
REFERENCE    "RFCyyyy, RFCzzzz"
::= { natMIBObjects 8 }

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

        This row has indexing which may create variables with
        more than 128 subidentifiers. Implementers of this
        table must be careful not to create entries which 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 NAT-MIB-V2."
    REFERENCE   "RFCyyyy, RFCzzzz"
    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

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DESCRIPTION

"This object specifies the address type used for
natAddrPortBindLocalAddr.

Deprecated in favor of NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { 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 which, 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { 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).

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Deprecated in favor of NAT-MIB-V2."
REFERENCE "RFCyyyy, RFCzzzz"
::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { natAddrPortBindEntry 6 }

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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 NAT-MIB-V2."
REFERENCE "RFCyyyy, RFCzzzz"
::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"
::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"
::= { 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 NAT-MIB-V2."
 REFERENCE "RFCyyyy, RFCzzzz"
 ::= { 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 NAT-MIB-V2."
 REFERENCE "RFCyyyy, RFCzzzz"
 ::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"
 ::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { 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 NAT-MIB-V2."
REFERENCE   "RFCyyyy, RFCzzzz"
::= { 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 NAT-MIB-V2."
    REFERENCE   "RFCyyyy, RFCzzzz"
    ::= { 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 NAT-MIB-V2."
    REFERENCE   "RFCyyyy, RFCzzzz"
    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 NAT-MIB-V2."
    REFERENCE   "RFCyyyy, RFCzzzz"
    ::= { natSessionEntry 1 }

natSessionPrivateSrcEPBindId OBJECT-TYPE
    SYNTAX      NatBindIdOrZero
    MAX-ACCESS  read-only
    STATUS      deprecated
    DESCRIPTION
        "The bind id associated between private and public
         source end points.  In the case of Symmetric-NAT,
         this should be set to zero.
         Deprecated in favor of NAT-MIB-V2."
    REFERENCE   "RFCyyyy, RFCzzzz"
    ::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"
::= { natSessionEntry 3 }

natSessionPrivateDstepBindId OBJECT-TYPE

SYNTAX NatBindIdOrZero

MAX-ACCESS read-only

STATUS deprecated

DESCRIPTION

"The bind id associated between private and public
destination end points.
Deprecated in favor of NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"
::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"
::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

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::= { natSessionEntry 6 }

natSessionUpTime OBJECT-TYPE

SYNTAX TimeTicks

MAX-ACCESS read-only

STATUS deprecated

DESCRIPTION

"The up time of this session in one-hundredths of a second.

Deprecated in favor of NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { natSessionEntry 8 }

natSessionProtocolType OBJECT-TYPE

SYNTAX NatProtocolType

MAX-ACCESS read-only

STATUS deprecated

DESCRIPTION

"The protocol type of this session.
Deprecated in favor of NAT-MIB-V2."
REFERENCE "RFCyyyy, RFCzzzz"
::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { natSessionEntry 11 }

natSessionPrivateSrcPort OBJECT-TYPE

SYNTAX InetPortNumber

MAX-ACCESS read-only

STATUS deprecated

DESCRIPTION

"When the value of protocol is TCP or UDP, this object

represents the source port in the first packet of session while in 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { natSessionEntry 16 }

natSessionPublicSrcPort OBJECT-TYPE

SYNTAX InetPortNumber

MAX-ACCESS read-only

STATUS deprecated

DESCRIPTION

"When the value of protocol 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 NAT-MIB-V2."
REFERENCE "RFCyyyy, RFCzzzz"
::= { 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 is 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { natSessionEntry 18 }

natSessionPublicDstPort 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 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { natSessionEntry 22 }

natSessionOutTranslates OBJECT-TYPE

SYNTAX Counter64

```
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 NAT-MIB-V2."
REFERENCE   "RFCyyyy, RFCzzzz"
 ::= { 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 NAT-MIB-V2."
    REFERENCE   "RFCyyyy, RFCzzzz"
    ::= { 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 NAT-MIB-V2."
    REFERENCE   "RFCyyyy, RFCzzzz"
    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 NAT-MIB-V2."
REFERENCE   "RFCyyyy, RFCzzzz"
::= { 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 NAT-MIB-V2."
REFERENCE   "RFCyyyy, RFCzzzz"
::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"
::= { natProtocolEntry 3 }

natProtocolDiscards OBJECT-TYPE

SYNTAX Counter64
MAX-ACCESS read-only
STATUS deprecated
DESCRIPTION

"The number of packets pertaining to the protocol

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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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"
::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { 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 NAT-MIB-V2."
REFERENCE "RFCyyyy, RFCzzzz"
::= { natMIBGroups 1 }

```

```

natTranslationGroup OBJECT-GROUP
OBJECTS { natAddrBindNumberOfEntries,
          natAddrBindGlobalAddrType,
          natAddrBindGlobalAddr,
          natAddrBindId,
          natAddrBindTranslationEntity,
          natAddrBindType,

```

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```

        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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { 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 NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { natMIBGroups 5 }

natMIBNotificationGroup NOTIFICATION-GROUP

NOTIFICATIONS { natPacketDiscard }

STATUS deprecated

DESCRIPTION

"A collection of notifications generated by devices supporting this MIB. Deprecated in favor of NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

::= { 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 NAT-MIB-V2."
    REFERENCE "RFCyyyy, RFCzzzz"
        -- 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 {

```

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```
    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

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"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:

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Deprecated in favor of NAT-MIB-V2."

REFERENCE "RFCyyyy, RFCzzzz"

-- 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."

```

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```

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, security considerations in [[I-D.ietf-behave-nat-mib-v2](#)] apply instead. Amongst other matters, these considerations cover the case where both this MIB module and NAT-MIB-V2 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 is requested to mark that identifier as DEPRECATED and to update the reference from [[RFC4008](#)] to the present document.

[7.](#) References

[7.1.](#) Normative References

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[7.2.](#) Informative References

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"Network Management Parameters registry at IANA",
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