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Management Information Base for Version 2 of the Simple Network Management Protocol (SNMPv2)

Status of this Memo

This document specifies an Internet standards track protocol for the Internet community, and requests discussion and suggestions for improvements. Please refer to the current edition of the "Internet Official Protocol Standards" (STD 1) for the standardization state and status of this protocol. Distribution of this memo is unlimited.

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1. Introduction

A management system contains: several (potentially many) nodes, each with a processing entity, termed an agent, which has access to management instrumentation; at least one management station; and, a management protocol, used to convey management information between the agents and management stations. Operations of the protocol are carried out under an administrative framework which defines authentication, authorization, access control, and privacy policies.

Management stations execute management applications which monitor and control managed elements. Managed elements are devices such as hosts, routers, terminal servers, etc., which are monitored and controlled via access to their management information.

Management information is viewed as a collection of managed objects, residing in a virtual information store, termed the Management Information Base (MIB). Collections of related objects are defined in MIB modules. These modules are written using a subset of OSI's Abstract Syntax Notation One (ASN.1) [1], termed the Structure of Management Information (SMI) [2].

The management protocol, SNMPv2 [3], provides for the exchange of messages which convey management information between the agents and the management stations. It is the purpose of this document to define managed objects which describe the behavior of a SNMPv2 entity.

1.1. A Note on Terminology

For the purpose of exposition, the original Internet-standard Network Management Framework, as described in RFCs 1155 (STD 16), 1157 (STD 15), and 1212 (STD 16), is termed the SNMP version 1 framework (SNMPv1). The current framework is termed the SNMP version 2 framework (SNMPv2).

2. Definitions

SNMPv2-MIB DEFINITIONS ::= BEGIN

IMPORTS

MODULE-IDENTITY, OBJECT-TYPE, NOTIFICATION-TYPE, TimeTicks, Counter32, snmpModules, mib-2 FROM SNMPv2-SMI DisplayString, TestAndIncr, TimeStamp
 FROM SNMPv2-TC MODULE-COMPLIANCE, OBJECT-GROUP, NOTIFICATION-GROUP FROM SNMPv2-CONF;

```
SNMpMIB MODULE-IDENTITY
    LAST-UPDATED "9511090000Z"
    ORGANIZATION "IETF SNMPv2 Working Group"
    CONTACT-INFO
                       Marshall T. Rose
              Postal: Dover Beach Consulting, Inc.
                       420 Whisman Court
                       Mountain View, CA 94043-2186
                       US
                 Tel: +1 415 968 1052
              E-mail: mrose@dbc.mtview.ca.us"
    DESCRIPTION
             "The MIB module for SNMPv2 entities."
                   "9304010000Z"
    REVISION
    DESCRIPTION
             "The initial revision of this MIB module was published as
             RFC 1450."
    ::= { snmpModules 1 }
snmpMIBObjects OBJECT IDENTIFIER ::= { snmpMIB 1 }
    ::= { snmpMIBObjects 1 }
                                       this OID is obsolete
    ::= { snmpMIBObjects 2 }
::= { snmpMIBObjects 3 }
                                       this OID is obsolete
                                       this OID is obsolete
-- the System group
-- a collection of objects common to all managed systems.
system
         OBJECT IDENTIFIER ::= { mib-2 1 }
svsDescr OBJECT-TYPE
    SYNTAX
                 DisplayString (SIZE (0..255))
    MAX-ACCESS read-only
    STATUS
                 current
    DESCRIPTION
             "A textual description of the entity. This value should include the full name and version identification of the
             system's hardware type, software operating-system, and
             networking software.
    ::= { system 1 }
sysObjectID OBJECT-TYPE
```

```
OBJECT IDENTIFIER
    SYNTAX
    MAX-ACCESS
                  read-only
    STATUS
                  current
    DESCRIPTION
             "The vendor's authoritative identification of the network
             management subsystem contained in the entity. This value is allocated within the SMI enterprises subtree (1.3.6.1.4.1) and provides an easy and unambiguous means for determining
              what kind of box' is being managed. For example, if vendor Flintstones, Inc.' was assigned the subtree
             1.3.6.1.4.1.4242, it could assign the identifier
             1.3.6.1.4.1.4242.1.1 to its `Fred Router'."
    ::= { system 2 }
sysUpTime OBJECT-TYPE
    SYNTAX
                  TimeTicks
    MAX-ACCESS
                  read-only
                  current
    STATUS
    DESCRIPTION
             "The time (in hundredths of a second) since the network
             management portion of the system was last re-initialized."
    ::= { system 3 }
svsContact OBJECT-TYPE
                  DisplayString (SIZE (0..255))
    MAX-ACCESS
                  read-write
    STATUS
                  current
    DESCRIPTION
              "The textual identification of the contact person for this
             managed node, together with information on how to contact
             this person. If no contact information is known, the value
             is the zero-length string."
    ::= { system 4 }
svsName OBJECT-TYPE
                  DisplayString (SIZE (0..255))
    SYNTAX
    MAX-ACCESS
                 read-write
    STATUS
                  current
    DESCRIPTION
             "An administratively-assigned name for this managed node.
             By convention, this is the node's fully-qualified domain
             name. If the name is unknown, the value is the zero-length
             string."
    ::= { system 5 }
sysLocation OBJECT-TYPE
                  DisplayString (SIZE (0..255))
    SYNTAX
    MAX-ACCESS read-write
```

```
STATUS
                   current
    DESCRIPTION
              "The physical location of this node (e.g., `telephone
              closet, 3rd floor'). If the location is unknown, the value
              is the zero-length string."
     ::= { system 6 }
sysServices OBJECT-TYPE
    SYNTAX
                   INTEGER (0..127)
    MAX-ACCESS
                   read-only
    STATUS
                   current
    DESCRIPTION
              "A value which indicates the set of services that this
              entity may potentially offers. The value is a sum. This sum initially takes the value zero, Then, for each layer, L, in the range 1 through 7, that this node performs
              transactions for, 2 raised to (L - 1) is added to the sum.
              For example, a node which performs only routing functions
              would have a value of 4 (2^(3-1)). In contrast, a node
              which is a host offering application services would have a value of 72 (2^{(4-1)} + 2^{(7-1)}). Note that in the context of the Internet suite of protocols, values should be
              calculated accordingly:
                    layer
                                  functionality
                       1
                                  physical (e.g., repeaters)
                       2
                                  datalink/subnetwork (e.g., bridges)
                       3
                                  internet (e.g., supports the IP)
                       4
                                  end-to-end (e.g., supports the TCP)
                                  applications (e.g., supports the SMTP)
              For systems including OSI protocols, layers 5 and 6 may also
              be counted."
     ::= { svstem 7 }
-- object resource information
-- a collection of objects which describe the SNMPv2 entity's
-- (statically and dynamically configurable) support of -- various MIB modules.
sysORLastChange OBJECT-TYPE
                 TimeStamp
    SYNTAX
    MAX-ACCESS read-only
    STATUS
                  current
    DESCRIPTION
              "The value of sysUpTime at the time of the most recent
```

```
change in state or value of any instance of sysORID."
    ::= { system 8 }
sysORTable OBJECT-TYPE
               SEQUENCE OF SysOREntry
    SYNTAX
    MAX-ACCESS not-accessible
    STATUS
               current
    DESCRIPTION
            "The (conceptual) table listing the capabilities of the
            local SNMPv2 entity acting in an agent role with respect to
            various MIB modules. SNMPv2 entities having dynamically-
            configurable support of MIB modules will have a
            dynamically-varying number of conceptual rows."
    ::= { system 9 }
sysOREntry OBJECT-TYPE
               Sys0REntry
    SYNTAX
    MAX-ACCESS not-accessible
    STATUS
               current
    DESCRIPTION
            "An entry (conceptual row) in the sysORTable."
               { sysORIndex }
    INDEX
    ::= { sysORTable 1 }
SvsOREntry ::= SEOUENCE {
    sys0RIndex
                   INTEGER.
                   OBJECT IDENTIFIER,
    sys0RID
    sys0RDescr
                   DisplayString,
    sysORUpTime
                   TimeStamp
}
sysORIndex OBJECT-TYPE
               INTEGER (1..2147483647)
    SYNTAX
    MAX-ACCESS not-accessible
               current
    STATUS
    DESCRIPTION
            "The auxiliary variable used for identifying instances of
            the columnar objects in the sysORTable.
    ::= { sys0REntry 1 }
sysORID OBJECT-TYPE
               OBJECT IDENTIFIER
    SYNTAX
    MAX-ACCESS read-only
    STATUS
               current
    DESCRIPTION
            "An authoritative identification of a capabilities statement
            with respect to various MIB modules supported by the local
            SNMPv2 entity acting in an agent role.
```

```
::= { sys0REntry 2 }
sysORDescr OBJECT-TYPE
               DisplayString
    SYNTAX
    MAX-ACCESS read-only
    STATUS
               current
    DESCRIPTION
            "A textual description of the capabilities identified by the
            corresponding instance of sysORID."
    ::= { sys0REntry 3 }
sysORUpTime OBJECT-TYPE
               TimeStamp
    SYNTAX
    MAX-ACCESS read-only
    STATUS
               current
    DESCRIPTION
            "The value of sysUpTime at the time this conceptual row was
            last instanciated.
    ::= { sys0REntry 4 }
-- the SNMP group
-- a collection of objects providing basic instrumentation and
-- control of an SNMP entity.
         OBJECT IDENTIFIER ::= { mib-2 11 }
snmp
snmpInPkts OBJECT-TYPE
    SYNTAX
              Counter32
    MAX-ACCESS read-only
    STATUS
               current
    DESCRIPTION
            "The total number of messages delivered to the SNMP entity
            from the transport service.'
    ::= { snmp 1 }
snmpInBadVersions OBJECT-TYPE
               Counter32
    SYNTAX
    MAX-ACCESS read-only
    STATUS
               current
    DESCRIPTION
            "The total number of SNMP messages which were delivered to
            the SNMP entity and were for an unsupported SNMP version."
    ::= \{ snmp 3 \}
snmpInBadCommunityNames OBJECT-TYPE
    SYNTAX
               Counter32
```

```
MAX-ACCESS read-only
    STATUS
                current
    DESCRIPTION
             "The total number of SNMP messages delivered to the SNMP
             entity which used a SNMP community name not known to said
             entity."
    ::= \{ snmp 4 \}
snmpInBadCommunityUses OBJECT-TYPE
    SYNTAX
               Counter32
    MAX-ACCESS read-only
    STATUS
                current
    DESCRIPTION
             "The total number of SNMP messages delivered to the SNMP
             entity which represented an SNMP operation which was not
             allowed by the SNMP community named in the message.'
    ::= \{ snmp 5 \}
snmpInASNParseErrs OBJECT-TYPE
                Counter32
    SYNTAX
    MAX-ACCESS read-only
    STATUS
                current
    DESCRIPTION
             "The total number of ASN.1 or BER errors encountered by the
             SNMP entity when decoding received SNMP messages."
    ::= \{ snmp 6 \}
snmpEnableAuthenTraps OBJECT-TYPE
    SYNTAX
                 INTEGER { enabled(1), disabled(2) }
    MAX-ACCESS
                read-write
    STATUS
                 current
    DESCRIPTION
             "Indicates whether the SNMP entity is permitted to generate
             authenticationFailure traps. The value of this object overrides any configuration information; as such, it
             provides a means whereby all authenticationFailure traps may
             be disabled.
             Note that it is strongly recommended that this object be
             stored in non-volatile memory so that it remains constant across re-initializations of the network management system."
    ::= { snmp 30 }
snmpSilentDrops OBJECT-TYPE
                Counter32
    SYNTAX
    MAX-ACCESS read-only
    STATUS
                current
    DESCRIPTION
```

```
"The total number of GetRequest-PDUs, GetNextRequest-PDUs
             GetBulkRequest-PDUs, SetRequest-PDUs, and InformRequest-PDUs
             delivered to the SNMP entity which were silently dropped
             because the size of a reply containing an alternate
             Response-PDU with an empty variable-bindings field was greater than either a local constraint or the maximum message size associated with the originator of the request."
    ::= \{ snmp 31 \}
snmpProxyDrops OBJECT-TYPE
    SYNTAX
                Counter32
    MAX-ACCESS read-only
    STATUS
                current
    DESCRIPTION
             "The total number of GetRequest-PDUs, GetNextRequest-PDUs
             GetBulkRequest-PDUs, SetRequest-PDUs, and InformRequest-PDUs
             delivered to the SNMP entity which were silently dropped
             because the transmission of the (possibly translated)
             message to a proxy target failed in a manner (other than a
             time-out) such that no Response-PDU could be returned."
    ::= { snmp 32 }
-- information for notifications
-- a collection of objects which allow the SNMPv2 entity, when
-- acting in an agent role, to be configured to generate
-- SNMPv2-Trap-PDŪs.
                OBJECT IDENTIFIER ::= { snmpMIBObjects 4 }
snmpTrap
snmpTrapOID OBJECT-TYPE
    SYNTAX OBJECT IDENTIFIER MAX-ACCESS accessible-for-notify
    STATUS
               current
    DESCRIPTION
             "The authoritative identification of the notification
             currently being sent. This variable occurs as the second
             varbind in every SNMPv2-Trap-PDU and InformRequest-PDU."
    ::= { snmpTrap 1 }
    ::= { snmpTrap 2 } this OID is obsolete
snmpTrapEnterprise OBJECT-TYPE
               OBJECT IDENTIFIER
    SYNTAX
    MAX-ACCESS accessible-for-notify
    STATUS current
```

```
DESCRIPTION
              "The authoritative identification of the enterprise
             associated with the trap currently being sent. When a SNMPv2 proxy agent is mapping an RFC1157 Trap-PDU into a
             SNMPv2-Trap-PDU, this variable occurs as the last varbind."
    ::= { snmpTrap 3 }
-- ::= { snmpTrap 4 } this OID is obsolete
-- well-known traps
                OBJECT IDENTIFIER ::= { snmpMIBObjects 5 }
snmpTraps
coldStart NOTIFICATION-TYPE
    STATUS
            current
    DESCRIPTION
             "A coldStart trap signifies that the SNMPv2 entity, acting
             in an agent role, is reinitializing itself and that its configuration may have been altered."
    ::= { snmpTraps 1 }
warmStart NOTIFICATION-TYPE
    STATUS current
    DESCRIPTION
             "A warmStart trap signifies that the SNMPv2 entity, acting
             in an agent role, is reinitializing itself such that its
             configuration is unaltered."
    ::= { snmpTraps 2 }
-- Note the linkDown NOTIFICATION-TYPE ::= { snmpTraps 3 }
-- and the linkUp NOTIFICATION-TYPE ::= { snmpTraps 4 }
-- are defined in RFC 1573
authenticationFailure NOTIFICATION-TYPE
    STATUS current
    DESCRIPTION
             "An authenticationFailure trap signifies that the SNMPv2
             entity, acting in an agent role, has received a protocol
             message that is not properly authenticated. While all implementations of the SNMPv2 must be capable of generating
             this trap, the snmpEnableAuthenTraps object indicates
             whether this trap will be generated.
    ::= { snmpTraps 5 }
-- Note the egpNeighborLoss NOTIFICATION-TYPE ::= { snmpTraps 6 }
-- is defined in RFC 1213
```

```
-- the set group
-- a collection of objects which allow several cooperating
-- SNMPv2 entities, all acting in a manager role, to
-- coordinate their use of the SNMPv2 set operation.
               OBJECT IDENTIFIER ::= { snmpMIBObjects 6 }
snmpSet
snmpSetSerialNo OBJECT-TYPE
    SYNTAX
               TestAndIncr
    MAX-ACCESS read-write
    STATUS
               current
    DESCRIPTION
            "An advisory lock used to allow several cooperating SNMPv2
            entities, all acting in a manager role, to coordinate their
            use of the SNMPv2 set operation.
            This object is used for coarse-grain coordination.
            achieve fine-grain coordination, one or more similar objects might be defined within each MIB group, as appropriate."
    ::= { snmpSet 1 }
-- conformance information
snmpMIBConformance
               OBJECT IDENTIFIER ::= { snmpMIB 2 }
snmpMIBCompliances
               OBJECT IDENTIFIER ::= { snmpMIBConformance 1 }
               OBJECT IDENTIFIER ::= { snmpMIBConformance 2 }
snmpMIBGroups
-- compliance statements
      ::= { snmpMIBCompliances 1 }
                                      this OID is obsolete
snmpBasicCompliance MODULE-COMPLIANCE
    STATUS current
    DESCRIPTION
            "The compliance statement for SNMPv2 entities which
            implement the SNMPv2 MIB."
    MODULE
            -- this module
        MANDATORY-GROUPS { snmpGroup, snmpSetGroup, systemGroup,
                            snmpBasicNotificationsGroup }
        GROUP
                 snmpCommunityGroup
```

```
DESCRIPTION
            "This group is mandatory for SNMPv2 entities which
            support community-based authentication.'
    ::= { snmpMIBCompliances 2 }
-- units of conformance
    ::= { snmpMIBGroups 1 }
                                      this OID is obsolete
    ::= { snmpMIBGroups 2 }
                                     this OID is obsolete
    ::= { snmpMIBGroups 3 }
                                     this OID is obsolete
    ::= { snmpMIBGroups 4 }
                                     this OID is obsolete
snmpGroup OBJECT-GROUP
    OBJECTS { snmpInPkts,
              snmpInBadVersions,
              snmpInASNParseErrs,
              snmpSilentDrops,
              snmpProxyDrops,
              snmpEnableAuthenTraps }
    STATUS
            current
    DESCRIPTION
            "A collection of objects providing basic instrumentation and
            control of an SNMPv2 entity."
    ::= { snmpMIBGroups 8 }
snmpCommunityGroup OBJECT-GROUP
    OBJECTS { snmpInBadCommunityNames,
              snmpInBadCommunityUses }
    STATUS
            current
    DESCRIPTION
            "A collection of objects providing basic instrumentation of
            a SNMPv2 entity which supports community-based authentication."
    ::= { snmpMIBGroups 9 }
snmpSetGroup OBJECT-GROUP
    OBJECTS { snmpSetSerialNo }
    STATUS current
    DESCRIPTION
            "A collection of objects which allow several cooperating
            SNMPv2 entities, all acting in a manager role, to coordinate
            their use of the SNMPv2 set operation.
    ::= { snmpMIBGroups 5 }
systemGroup OBJECT-GROUP
    OBJECTS { sysDescr, sysObjectID, sysUpTime,
```

```
sysContact, sysName, sysLocation,
              sysServices,
              sysORLastChange, sysORID,
              sysORUpTime, sysORDescr }
    STATUS
            current
    DESCRIPTION
            "The system group defines objects which are common to all
            managed systems.
    ::= { snmpMIBGroups 6 }
snmpBasicNotificationsGroup NOTIFICATION-GROUP
    NOTIFICATIONS { coldStart, authenticationFailure }
    STATUS
                  current
    DESCRIPTION
            "The two notifications which an SNMPv2 entity is required to
            implement."
    ::= { snmpMIBGroups 7 }
-- definitions in RFC 1213 made obsolete by the inclusion of a
-- subset of the snmp group in this MIB
snmpOutPkts OBJECT-TYPE
    SYNTAX
                Counter32
    MAX-ACCESS
                read-only
    STATUS
                obsolete
    DESCRIPTION
            "The total number of SNMP Messages which were
            passed from the SNMP protocol entity to the
            transport service.'
    ::= \{ snmp 2 \}
-- { snmp 7 } is not used
snmpInTooBigs OBJECT-TYPE
    SYNTAX
                Counter32
    MAX-ACCESS
                read-only
    STATUS
                obsolete
    DESCRIPTION
            "The total number of SNMP PDUs which were
            delivered to the SNMP protocol entity and for
            which the value of the error-status field is `tooBig'."
    ::= \{ snmp 8 \}
snmpInNoSuchNames OBJECT-TYPE
                Counter32
    SYNTAX
    MAX-ACCESS read-only
```

```
STATUS
                 obsolete
    DESCRIPTION
             "The total number of SNMP PDUs which were
             delivered to the SNMP protocol entity and for
             which the value of the error-status field is
              noSuchName'."
    ::= { snmp 9 }
snmpInBadValues OBJECT-TYPE
    SYNTAX
                 Counter32
    MAX-ACCESS
                 read-onlv
    STATUS
                 obsolete
    DESCRIPTION
             "The total number of SNMP PDUs which were delivered to the SNMP protocol entity and for
             which the value of the error-status field is
              badValue'.
    ::= { snmp 10 }
snmpInReadOnlys OBJECT-TYPE
    SYNTAX
                 Counter32
    MAX-ACCESS
               read-only
    STATUS
                 obsolete
    DESCRIPTION
             "The total number valid SNMP PDUs which were
             delivered to the SNMP protocol entity and for
             which the value of the error-status field is readOnly'. It should be noted that it is a
             protocol error to generate an SNMP PDU which
             contains the value `readOnly' in the error-status
             field, as such this object is provided as a means
             of detecting incorrect implementations of the
             SNMP."
    ::= { snmp 11 }
snmpInGenErrs OBJECT-TYPE
                 Counter32
    SYNTAX
    MAX-ACCESS read-only
    STATUS
                 obsolete
    DESCRIPTION
             "The total number of SNMP PDUs which were
             delivered to the SNMP protocol entity and for
             which the value of the error-status field is
              genErr'."
    ::= { snmp 12 }
snmpInTotalReqVars OBJECT-TYPE
    SYNTAX
                 Counter32
```

```
MAX-ACCESS read-only
                obsolete
    STATUS
    DESCRIPTION
            "The total number of MIB objects which have been
            retrieved successfully by the SNMP protocol entity
            as the result of receiving valid SNMP Get-Request
            and Get-Next PDUs."
    ::= { snmp 13 }
snmpInTotalSetVars OBJECT-TYPE
    SYNTAX
                Counter32
    MAX-ACCESS read-only
    STATUS
                obsolete
    DESCRIPTION
            "The total number of MIB objects which have been
            altered successfully by the SNMP protocol entity
            as the result of receiving valid SNMP Set-Request
            PDUs.'
    ::= { snmp 14 }
snmpInGetRequests OBJECT-TYPE
    SYNTAX
                Counter32
    MAX-ACCESS read-only
    STATUS
               obsolete
    DESCRIPTION
            "The total number of SNMP Get-Request PDUs which
            have been accepted and processed by the SNMP
            protocol entity.'
    ::= { snmp 15 }
snmpInGetNexts OBJECT-TYPE
    SYNTAX
                Counter32
    MAX-ACCESS
              read-only
    STATUS
                obsolete
    DESCRIPTION
            "The total number of SNMP Get-Next PDUs which have
            been accepted and processed by the SNMP protocol
            entity."
    ::= { snmp 16 }
snmpInSetRequests OBJECT-TYPE
    SYNTAX
                Counter32
    MAX-ACCESS
              read-only
    STATUS
                obsolete
    DESCRIPTION
            "The total number of SNMP Set-Request PDUs which
            have been accepted and processed by the SNMP
            protocol entity."
```

```
::= { snmp 17 }
snmpInGetResponses OBJECT-TYPE
    SYNTAX
                 Counter32
    MAX-ACCESS read-only
    STATUS
                 obsolete
    DESCRIPTION
            "The total number of SNMP Get-Response PDUs which
            have been accepted and processed by the SNMP
            protocol entity.'
    ::= { snmp 18 }
snmpInTraps OBJECT-TYPE
                 Counter32
    SYNTAX
    MAX-ACCESS
               read-only
    STATUS
                 obsolete
    DESCRIPTION
             "The total number of SNMP Trap PDUs which have
            been accepted and processed by the SNMP protocol
            entity."
    ::= { snmp 19 }
snmpOutTooBigs OBJECT-TYPE
    SYNTAX
                 Counter32
    MAX-ACCESS
                read-only
    STATUS
                obsolete
    DESCRIPTION
            "The total number of SNMP PDUs which were generated by the SNMP protocol entity and for
            which the value of the error-status field is
             tooBig.'"
    ::= \{ snmp 20 \}
snmpOutNoSuchNames OBJECT-TYPE
    SYNTAX
                 Counter32
    MAX-ACCESS
                read-only
    STATUS
                 obsolete
    DESCRIPTION
            "The total number of SNMP PDUs which were
            generated by the SNMP protocol entity and for
            which the value of the error-status is
             noSuchName'."
    ::= { snmp 21 }
snmpOutBadValues OBJECT-TYPE
                 Counter32
    SYNTAX
    MAX-ACCESS
               read-only
    STATUS
                obsolete
```

```
DESCRIPTION
            "The total number of SNMP PDUs which were
            generated by the SNMP protocol entity and for
            which the value of the error-status field is
             badValue'."
    ::= { snmp 22 }
-- { snmp 23 } is not used
snmpOutGenErrs OBJECT-TYPE
    SYNTAX
                Counter32
    MAX-ACCESS read-only
    STATUS
                obsolete
    DESCRIPTION
            "The total number of SNMP PDUs which were
            generated by the SNMP protocol entity and for
            which the value of the error-status field is
             genErr'."
    ::= { snmp 24 }
snmpOutGetRequests OBJECT-TYPE
    SYNTAX
                Counter32
    MAX-ACCESS
                read-only
    STATUS
                obsolete
    DESCRIPTION
            "The total number of SNMP Get-Request PDUs which
            have been generated by the SNMP protocol entity.
    ::= { snmp 25 }
snmpOutGetNexts OBJECT-TYPE
    SYNTAX
                Counter32
    MAX-ACCESS
              read-only
    STATUS
                obsolete
    DESCRIPTION
            "The total number of SNMP Get-Next PDUs which have
            been generated by the SNMP protocol entity."
    ::= \{ snmp 26 \}
snmpOutSetRequests OBJECT-TYPE
                Counter32
    SYNTAX
    MAX-ACCESS read-only
    STATUS
                obsolete
    DESCRIPTION
            "The total number of SNMP Set-Request PDUs which
            have been generated by the SNMP protocol entity."
    ::= \{ snmp 27 \}
```

```
snmpOutGetResponses OBJECT-TYPE
    SYNTAX
                 Counter32
    MAX-ACCESS
                 read-only
    STATUS
                 obsolete
    DESCRIPTION
             "The total number of SNMP Get-Response PDUs which
             have been generated by the SNMP protocol entity."
    ::= \{ snmp 28 \}
snmpOutTraps OBJECT-TYPE
    SYNTAX
                 Counter32
    MAX-ACCESS
                 read-only
    STATUS
                 obsolete
    DESCRIPTION
             "The total number of SNMP Trap PDUs which have
            been generated by the SNMP protocol entity."
    ::= \{ snmp 29^{-} \}
snmpObsoleteGroup OBJECT-GROUP
    OBJECTS { snmpOutPkts, snmpInTooBigs, snmpInNoSuchNames, snmpInBadValues, snmpInReadOnlys, snmpInGenErrs,
               snmpInTotalReqVars, snmpInTotalSetVars,
               snmpInGetRequests, snmpInGetNexts, snmpInSetRequests,
               snmpInGetResponses, snmpInTraps, snmpOutTooBigs,
               snmpOutNoSuchNames, snmpOutBadValues, snmpOutGenErrs,
               snmpOutGetRequests, snmpOutGetNexts, snmpOutSetRequests,
               snmpOutGetResponses, snmpOutTraps }
    STATUS
            obsolete
    DESCRIPTION
             "A collection of objects from RFC 1213 made obsolete by this
            MIB.
    ::= { snmpMIBGroups 10 }
```

3. Security Considerations

END

Security issues are not discussed in this memo.

4. Editor's Address

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5. Acknowledgements

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