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

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Status of this Memo   -

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, 1157, and 1212, is
termed the SNMP version 1 framework (SNMPv1). The current framework is |
termed the SNMP version 2 framework (SNMPv2), as described in [5]. |

[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
        FROM SNMPv2-CONF;

snmpMIB MODULE-IDENTITY
    LAST-UPDATED "9510110000Z" |
    ORGANIZATION "IETF SNMPv2 Working Group"
    CONTACT-INFO
            "   Marshall T. Rose

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                     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."
    REVISION   "9304010000Z" |
    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 }   this OID is obsolete   +
-- ::= { snmpMIBObjects 3 }   this OID is obsolete   +

```
-- the System group
--
-- a collection of objects common to all managed systems.

system   OBJECT IDENTIFIER ::= { mib-2 1 }

sysDescr 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
    SYNTAX      OBJECT IDENTIFIER
    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
    STATUS      current
    DESCRIPTION
            "The time (in hundredths of a second) since the network
            management portion of the system was last re-initialized."
    ::= { system 3 }

sysContact OBJECT-TYPE
    SYNTAX      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 }

sysName OBJECT-TYPE
    SYNTAX   DisplayString (SIZE (0..255))
    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
    SYNTAX   DisplayString (SIZE (0..255))
    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)
                       7          applications (e.g., supports the SMTP)

              For systems including OSI protocols, layers 5 and 6 may also
              be counted."
        ::= { system 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
    SYNTAX      TimeStamp
    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
    SYNTAX      SEQUENCE OF SysOREntry
    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
    SYNTAX     SysOREntry
    MAX-ACCESS not-accessible
    STATUS     current
    DESCRIPTION
            "An entry (conceptual row) in the sysORTable."
    INDEX      { sysORIndex }
    ::= { sysORTable 1 }

SysOREntry ::= SEQUENCE {
    sysORIndex     INTEGER,
    sysORID        OBJECT IDENTIFIER,
    sysORDescr     DisplayString,
    sysORUpTime    TimeStamp
}

sysORIndex OBJECT-TYPE
    SYNTAX     INTEGER (1..2147483647)
    MAX-ACCESS not-accessible
    STATUS     current
    DESCRIPTION
            "The auxiliary variable used for identifying instances of
            the columnar objects in the sysORTable."
    ::= { sysOREntry 1 }

sysORID OBJECT-TYPE
    SYNTAX     OBJECT IDENTIFIER
    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."
    ::= { sysOREntry 2 }

sysORDescr OBJECT-TYPE
    SYNTAX     DisplayString
    MAX-ACCESS read-only
    STATUS     current
    DESCRIPTION
            "A textual description of the capabilities identified by the
            corresponding instance of sysORID."
    ::= { sysOREntry 3 }
```

sysORUpTime OBJECT-TYPE
    SYNTAX   TimeStamp
    MAX-ACCESS read-only
    STATUS   current
    DESCRIPTION
            "The value of sysUpTime at the time this conceptual row was
            last instanciated."
    ::= { sysOREntry 4 }

```
-- the SNMP group                                                      |
--
-- a collection of objects providing basic instrumentation and         |
-- control of an SNMP entity.                                          |

snmp      OBJECT IDENTIFIER ::= { mib-2 11 }                          |

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                                          |
    SYNTAX      Counter32                                             |
    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                                           |
    SYNTAX     Counter32
    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                                              |
    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 SNMPv2 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 SNMPv2 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-PDUs.

snmpTrap        OBJECT IDENTIFIER ::= { snmpMIBObjects 4 }


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
    SYNTAX     OBJECT IDENTIFIER
    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   -

snmpTraps   OBJECT IDENTIFIER ::= { snmpMIBObjects 5 }

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.

snmpSet   OBJECT IDENTIFIER ::= { snmpMIBObjects 6 }

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. To
            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 }
snmpMIBGroups   OBJECT IDENTIFIER ::= { snmpMIBConformance 2 }

-- 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                                        +
    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            +
            `noSuchName'."                                           +
    ::= { snmp 9 }                                                  +

snmpInBadValues 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            +
```

```
            `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                                          +
    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          +
            `genErr'."                                             +
    ::= { snmp 12 }                                                +


snmpInTotalReqVars OBJECT-TYPE                                     +
    SYNTAX      Counter32                                          +
    MAX-ACCESS  read-only                                          +
    STATUS      obsolete                                           +
    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                                          +
    SYNTAX      Counter32                                        +
    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                                     +
    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         +
            `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                                      +
    SYNTAX      Counter32                                           +
    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 }                                           +

END
```

3. **Acknowledgements**

This document is the result of significant work by the four major
contributors:

        Jeffrey Case (SNMP Research, case@snmp.com)
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[4]   J.D. Case, C. Partridge, Case Diagrams: A First Step to Diagramed
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      Internet-standard Network Management Framework", Internet Draft,   +
      Cisco Systems, September 1995.   +

[5]. Security Considerations

Security issues are not discussed in this memo.

[6]. Editor's Address

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Table of Contents   -