

Expires: March 2002

Infiniband Subnet Management Agent Management Information Base

1. Status of this Memo

This document is an Internet-Draft and is in full conformance with all provisions of [Section 10 of RFC2026](#).

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<http://www.ietf.org/shadow.html>.

2. Abstract

This memo defines a portion of the Management Information Base (MIB) for use with network management protocols in the Internet community. In particular, it defines objects for managing Infiniband Subnet Management Agents (<http://www.infinibandta.org>)

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3. The SNMP Management Framework

The SNMP Management Framework presently consists of five major components:

- o An overall architecture, described in [RFC 2571](#)[[RFC2571](#)].
- o Mechanisms for describing and naming objects and events for the purpose of management. The first version of this Structure of Management Information (SMI) is called SMIV1 and described in STD 16, [RFC 1155](#)[[RFC1155](#)], STD 16, [RFC 1212](#) [[RFC1212](#)] and [RFC 1215](#) [[RFC1215](#)]. The second version, called SMIV2, is described in STD 58, [RFC 2578](#)[[RFC2578](#)], STD 58, [RFC 2579](#)[[RFC2579](#)], and STD 58, [RFC 2580](#)[[RFC2580](#)].
- o Message protocols for transferring management information. The first version of the SNMP message protocol is called SNMPv1 and described in STD 15, [RFC 1157](#)[[RFC1157](#)]. A second version of the SNMP message protocol, which is not an Internet standards track protocol, is called SNMPv2c and described in [RFC 1901](#)[[RFC1901](#)] and [RFC 1906](#)[[RFC1906](#)]. The third version of the message protocol is called SNMPv3 and described in [RFC 1906](#)[[RFC1906](#)], [RFC 2572](#)[[RFC2572](#)] and [RFC 2574](#)[[RFC2574](#)].
- o Protocol operations for accessing management information. The first set of protocol operations and associated PDU formats is described in STD 15, [RFC 1157](#)[[RFC1157](#)]. A second set of protocol operations and associated PDU formats is described in [RFC 1905](#)[[RFC1905](#)].
- o A set of fundamental applications described in [RFC 2573](#)[[RFC2573](#)] and the view-based access control mechanism described in [RFC 2575](#)[[RFC2575](#)].

A more detailed introduction to the current SNMP Management Framework can be found in [RFC 2570](#)[[RFC2570](#)].

Managed objects are accessed via a virtual information store, termed the Management Information Base or MIB. Objects in the MIB are defined using the mechanisms defined in the SMI.

This memo specifies a MIB module that is compliant to the SMIV2. A MIB conforming to the SMIV1 can be produced through the appropriate translations. The resulting translated MIB must be semantically equivalent, except where objects or events are omitted because no translation is possible (use of Counter64). Some machine readable information in SMIV2 will be converted into textual descriptions in SMIV1 during the translation process. However, this loss of machine readable information is not considered to change the semantics of the MIB.

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4. Conventions used in this document

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in [RFC 2119](#) [[RFC2119](#)].

5. Overview

The Infiniband Architecture[IBTAArch] is defined by the Infiniband Trade Association. Infiniband is designed to provide low latency high bandwidth interconnect in a computing environment. This document will define the objects related to managing the subnet management agent on each device in an Infiniband Fabric.

6. Definitions

SMA-MIB DEFINITIONS ::= BEGIN

IMPORTS

applIndex	FROM APPLICATION-MIB
MODULE-IDENTITY, OBJECT-TYPE, enterprises, experimental,	
Counter32, PhysAddress, NOTIFICATION-TYPE,	
	FROM SNMPv2-SMI
TEXTUAL-CONVENTION, DisplayString,	
TimeStamp	FROM SNMPv2-TC
MODULE-COMPLIANCE, OBJECT-GROUP,	
NOTIFICATION-GROUP	
	FROM SNMPv2-CONF
ifIndex	FROM IF-MIB
TRAP-TYPE	FROM RFC-1215 ;

```

sma MODULE-IDENTITY
    LAST-UPDATED      "200109200000Z"
    ORGANIZATION      "Sanera Systems, Inc."
    CONTACT-INFO
        "              Sanera Systems
        Postal: 1925 Amberglen Parkway
                Suite 155
                Beaverton, Oregon, 97006 USA
        Tel: 503-601-0261
        E-mail: billiam@sanera.net
        Web: www.sanera.net"

    DESCRIPTION
        "This module defines subnet management agent
        instrumentation for an InfiniBand Subnet Management
        Agent."
    REVISION          "200109200000Z"
    DESCRIPTION       "Initial revision."

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    ::= { experimental 9876544 } -- TO BE ASSIGNED BY IANA

-----
-- Object Identifiers for the sma MIB
-----
smaMIBObjects      OBJECT IDENTIFIER ::= { sma 1 }
smaNode            OBJECT IDENTIFIER ::= { smaMIBObjects 1 }
smaAttributeComponent OBJECT IDENTIFIER ::= { smaNode 1 }
smaPort            OBJECT IDENTIFIER ::= { smaMIBObjects 2 }
smaSMInfo          OBJECT IDENTIFIER ::= { smaMIBObjects 3 }
smaMRft            OBJECT IDENTIFIER ::= { smaMIBObjects 4 }
smaMcast           OBJECT IDENTIFIER ::= { smaMIBObjects 5 }
smaLft             OBJECT IDENTIFIER ::= { smaMIBObjects 6 }
smaRandom          OBJECT IDENTIFIER ::= { smaMIBObjects 7 }
smaPkey            OBJECT IDENTIFIER ::= { smaMIBObjects 8 }
smaArbitration     OBJECT IDENTIFIER ::= { smaMIBObjects 9 }
smaSltoVl          OBJECT IDENTIFIER ::= { smaMIBObjects 10 }
smaGuid            OBJECT IDENTIFIER ::= { smaMIBObjects 11 }
smaTrapData        OBJECT IDENTIFIER ::= { smaMIBObjects 12 }

-----
-- NodeInfo Attribute Components
-----

smaNodeBaseVersion OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  read-only
    STATUS      current

```

DESCRIPTION

"Supported Base Management datagram version supported. "
 ::= { smaAttributeComponent 1 }

nNodeClassVersion OBJECT-TYPE

SYNTAX Integer32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"Supported Subnet Management Class. "
 ::= { smaAttributeComponent 2 }

smaNodeType OBJECT-TYPE

SYNTAX INTEGER {
 reserved(0),
 channelAdapter(1),
 switch(2),
 router(3),
 error(4)
 }

MAX-ACCESS read-only

STATUS current

DESCRIPTION

" Type of device this sma is supporting. Types are
 1: Channel Adapter
 2: Switch

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3: Router
 0,4-255: reserved "
 ::= { smaAttributeComponent 3 }

smaNodeGuid OBJECT-TYPE

SYNTAX OCTET STRING (SIZE(8))

MAX-ACCESS read-only

STATUS current

DESCRIPTION

" The GUID of this NODE"
 ::= { smaAttributeComponent 4 }

smaPortGuid OBJECT-TYPE

SYNTAX OCTET STRING (SIZE(8))

MAX-ACCESS read-only

STATUS current

DESCRIPTION

" The GUID of this PORT"
 ::= { smaAttributeComponent 5 }

```

smaPartitionCap OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Number of entries in the Partition Table for CA, router, and
        the switch management port. This is at a minimum set to 1
        for all nodes including switches."
    ::= { smaAttributeComponent 6 }

smaDeviceId OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE(2))
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Device ID information as assigned by device manufacturer."
    ::= { smaAttributeComponent 7 }

smaRevision OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE(4))
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Device revision, assigned by manufacturer."
    ::= { smaAttributeComponent 8 }

smaLocalPortNum OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of the link port which received this SNMP request,
        otherwise 0."

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    ::= { smaAttributeComponent 9 }

smaVendorID    OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE(3))
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Device vendor, per IEEE."
    ::= { smaAttributeComponent 10 }

smaTrapBuffer  OBJECT-TYPE
    SYNTAX      DisplayString
    MAX-ACCESS  read-only

```

```

STATUS      current
DESCRIPTION
    "Special purpose string buffer for InfiniBand Trap Data."
::= { smaAttributeComponent 12 }

```

```

-----
-- SwitchInfo Attributes Components
-----

```

```

smaSwLinearFDBCap OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS   read-only
    STATUS      current
    DESCRIPTION
        "Number of entries supported in the Linear Unicast Forwarding
        Table (starting at LID=0x0000 going up). LinearFDBCap = 0
        indicates that there is no Linear Forwarding Database."
    ::= { smaAttributeComponent 11 }

```

```

smaSwRandomFDBCap OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS   read-only
    STATUS      current
    DESCRIPTION
        "Number of entries supported in the Random Unicast Forwarding
        Table. RandomFDBCap = 0 indicates that there is no Random
        Forwarding Database. "
    ::= { smaAttributeComponent 12 }

```

```

smaSwMulticastFDBCap OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS   read-only
    STATUS      current
    DESCRIPTION
        "Number of entries supported in the Multicast Forwarding Table
        (starting at LID=0xC000 going up). "
    ::= { smaAttributeComponent 13 }

```

```

smaSwLineraFDBTop OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS   read-only

```

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```

STATUS      current
DESCRIPTION
    "Indicates the top of the linear forwarding table. Packets
    received with unicast DLIDs greater than this value are
    discarded by the switch. This component applies only to
    switches that implement linear forwarding tables and is

```

ignored by switches that implement random forwarding tables."

::= { smaAttributeComponent 14 }

smaSwDefaultPort OBJECT-TYPE

SYNTAX Integer32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"Forward to this port all the unicast packets from the other ports whose DLID does not exist in the random forwarding table, see section Chapter 18 Switches"

::= { smaAttributeComponent 15 }

smaSwDefMcastPriPort OBJECT-TYPE

SYNTAX Integer32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"Forward to this port all the multicast packets from the other ports whose DLID does not exist in the forwarding table, see [section 18.2.4.3.3](#) Required Multicast Relay ."

::= { smaAttributeComponent 16 }

smaSwDefMcastNPPort OBJECT-TYPE

SYNTAX Integer32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"Forward to this port all the multicast packets from the Default Primary port whose DLID does not exist in the forwarding table, see [section 18.2.4.3.3](#) Required Multicast Relay."

::= { smaAttributeComponent 17 }

smaSwLifeTimeValue OBJECT-TYPE

SYNTAX Integer32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"Sets the time a packet can live in the switch, see [section 18.2.5.4](#) Transmitter Queueing ."

::= { smaAttributeComponent 18 }

smaSwPortStateChange OBJECT-TYPE

SYNTAX Integer32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"It is set to one anytime the PortState component in the PortInfo of any ports transitions from Down to Initialize, Initialize to Down, Armed to Down, or Active to Down as a result of link state machine logic. Changes in Ports-tate resulting from SubnSet do no change this bit. This bit is cleared by writing one, writing zero is ignored. "

::= { smaAttributeComponent 19 }

smaSwLIDsPerPort OBJECT-TYPE

SYNTAX OCTET STRING (SIZE(2))

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"Specifies the number of LID/LMC combinations that may be assigned to a given external port for switches that support the Random Forwarding table."

::= { smaAttributeComponent 20 }

smaSwPartitionEnfCap OBJECT-TYPE

SYNTAX Integer32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"Specifies the number of entries in the partition enforcement table per physical port. Zero indicates that partition enforcement is not supported by the switch."

::= { smaAttributeComponent 21 }

smaSwInboundEnfCap OBJECT-TYPE

SYNTAX Integer32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"Indicates switch is capable of partition enforcement on received packets."

::= { smaAttributeComponent 22 }

smaSwOutboundEnfCap OBJECT-TYPE

SYNTAX Integer32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"Indicates switch is capable of partition enforcement on transmitted packets."

::= { smaAttributeComponent 23 }

smaSwFilterRawPktInCap OBJECT-TYPE

SYNTAX Integer32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"Indicates switch is capable of raw packet enforcement on received packets."

::= { smaAttributeComponent 24 }

smaSwFilterRawPktOutCap OBJECT-TYPE

SYNTAX Integer32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"Indicates switch is capable of raw enforcement on transmitted packets."

::= { smaAttributeComponent 25 }

smaNodeString OBJECT-TYPE

SYNTAX DisplayString

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"Node description string. Unicode characters are 16 bits."

::= { smaAttributeComponent 26 }

smaVlWeightTable1 OBJECT-TYPE

SYNTAX OCTET STRING (SIZE (64))

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"Virtual Lane/Weight Pairs

Lists of 32 VL/Weight Block elements, for which there may be up to 64 in total for a given priority. The interpretation is as follows:

- 1 - values 0 - 31 of low priority
- 2 - values 32 -63 of low priority
- 3 - values 0 - 31 of high priority
- 4 - values 32 -63 of high priority

Each table contains 32 VL_Weight Elements, each element of 2 OCTETS. Top 4 bits, bits 4-7, are Reserved. Bits 0-3 are the VL."

::= { smaAttributeComponent 27 }

smaVlWeightTable2 OBJECT-TYPE

SYNTAX OCTET STRING (SIZE (4))
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "2 - values 32 -63 of low priority."

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::= { smaAttributeComponent 28 }

smaVlWeightTable3 OBJECT-TYPE
 SYNTAX OCTET STRING (SIZE (4))
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "3 - values 0 - 31 of high priority."
 ::= { smaAttributeComponent 28 }

smaVlWeightTable4 OBJECT-TYPE
 SYNTAX OCTET STRING (SIZE (4))
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "4 - values 32 -63 of high priority."
 ::= { smaAttributeComponent 29 }

 -- SMInfo Attribute Table

smaSMInfoTable OBJECT-TYPE
 SYNTAX SEQUENCE OF SmaSMInfoEntry
 MAX-ACCESS not-accessible
 STATUS current
 DESCRIPTION
 "A table containing SMInfo Data per port"
 ::= { smaSMInfo 1 }

smaSMInfoEntry OBJECT-TYPE
 SYNTAX SmaSMInfoEntry
 MAX-ACCESS not-accessible
 STATUS current
 DESCRIPTION
 "A conceptual row of the containing information about a SMInfo
 entry."
 INDEX { ifIndex }
 ::= { smaSMInfoTable 1 }

```

SmaSMInfoEntry ::= SEQUENCE {
    SmInfoGUID      OCTET STRING,
    smKEY           OCTET STRING,
    smActCount      Counter32,
    smPriority       Integer32,
    smState         INTEGER
}

```

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```

-----
-- SMInfo Attribute components
-----

```

```

smInfoGUID OBJECT-TYPE
    SYNTAX OCTET STRING (SIZE (8))
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        " PortGUID of the port the SM resides."
    ::= { smaSMInfoEntry 1 }

```

```

smKEY OBJECT-TYPE
    SYNTAX OCTET STRING (SIZE (8))
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The SM_Key of this SM, or 0 if this is not an SM."
    ::= { smaSMInfoEntry 2 }

```

```

smActCount OBJECT-TYPE
    SYNTAX Counter32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Counter that increments each time the SM issues an SMP or
        performs other management activities. Used as a heartbeat
        indicator by standby SMs."
    ::= { smaSMInfoEntry 3 }

```

```

smPriority OBJECT-TYPE
    SYNTAX Integer32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Administratively assigned priority for this SM. Can be
        reset by master SM. Zero is lowest priority. An out-of-band
        mechanism for setting this value must be provided. The
        default value, if not set by the out-of-band mechanism,
        shall be zero."

```

```
::= { smaSMInfoEntry 4 }
```

```
smState OBJECT-TYPE
```

```
SYNTAX INTEGER {  
    notActive(0),  
    discovering(1),  
    standby(2),  
    master(3),  
    reserved(4)  
}
```

```
MAX-ACCESS read-only
```

```
STATUS current
```

```
DESCRIPTION
```

```
"Enumerated value indicating this SMs state.
```

```
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```

```
Enumerated as follows:
```

```
0 - not active
```

```
1 - discovering
```

```
2 - standby
```

```
3 - master
```

```
4-15 - Reserved"
```

```
::= { smaSMInfoEntry 5 }
```

```
-----  
-- PortInfo Attributes Components  
-----
```

```
smaPortInfoTable OBJECT-TYPE
```

```
SYNTAX SEQUENCE OF SmaPortInfoEntry
```

```
MAX-ACCESS not-accessible
```

```
STATUS current
```

```
DESCRIPTION
```

```
"A table containing sma PortInfo information."
```

```
::= { smaPort 2 }
```

```
smaPortInfoEntry OBJECT-TYPE
```

```
SYNTAX SmaPortInfoEntry
```

```
MAX-ACCESS not-accessible
```

```
STATUS current
```

```
DESCRIPTION
```

```
"A conceptual row of the smaPortInfoTable containing  
information about a particular current sma Port states."
```

```
INDEX { ifIndex }
```

```
::= { smaPortInfoTable 1 }
```

```
SmaPortInfoEntry ::= SEQUENCE {
```

```
    smaPortMKey OCTET STRING ,
```

smaPortGidPrefix	OCTET STRING ,
smaPortLid	OCTET STRING ,
smaPortMasterSMLID	OCTET STRING ,
smaPortCapabilityMask	OCTET STRING ,
smaPortDiagCode	OCTET STRING ,
smaPortMKeyLeasePeriod	OCTET STRING ,
smaPortLocalPortNum	Integer32,
smaPortLinkWidthEnabled	Integer32,
smaPortLinkWidthSupported	Integer32,
smaPortLinkWidthActive	Integer32,
smaPortLinkSpeedSupported	Integer32,
smaPortState	INTEGER,
smaPortPortPhys	INTEGER,
smaPortLinkDownDef	INTEGER,
smaPortMKeyProtectBits	Integer32,
smaPortLMC	Integer32,
smaPortLSActive	INTEGER,
smaPortLSActiveEnabled	INTEGER,
smaPortNeighborMTU	INTEGER,
smaPortMasterSMSL	Integer32,
smaPortVLCap	INTEGER,

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smaPortVLHighLimit	Integer32,
smaPortVLArbitrationHighCap	Integer32,
smaPortVLArbitrationLowCap	Integer32,
smaPortMTUCap	INTEGER,
smaPortVLStallCount	Integer32,
smaPortHOQLife	Integer32,
smaPortOpVLs	INTEGER,
smaPortPkeyEnfIn	Integer32,
smaPortPkeyEnfOut	Integer32,
smaPortFilterRawPktIn	Integer32,
smaPortFilterRawPktOut	Integer32,
smaPortMKeyViolations	Integer32,
smaPortPKeyViolations	Integer32,
smaPortQKeyViolations	Integer32,
smaPortGUIDCap	Integer32,
smaPortSubnetTimeout	Integer32,
smaPortRespTimeValue	Integer32,
smaPortLocalPhysErr	Integer32,
smaPortOverrunErr	Integer32
}	

 -- sma PortInfo Comonent Elements

smaPortMKey OBJECT-TYPE

SYNTAX OCTET STRING (SIZE(8))
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "The 8-byte management key. See [section 14.2.4](#) Management
 Key."
 ::= { smaPortInfoEntry 1 }

smaPortGidPrefix OBJECT-TYPE
 SYNTAX OCTET STRING (SIZE(8))
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "GID prefix for this port."
 ::= { smaPortInfoEntry 2 }

smaPortLid OBJECT-TYPE
 SYNTAX OCTET STRING (SIZE(2))
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "The base LID of this port."
 ::= { smaPortInfoEntry 3 }

smaPortMasterSMLID OBJECT-TYPE
 SYNTAX OCTET STRING (SIZE(2))
 MAX-ACCESS read-only
 STATUS current

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DESCRIPTION
 "The LID of the master SM that is managing this port."
 ::= { smaPortInfoEntry 4 }

smaPortCapabilityMask OBJECT-TYPE
 SYNTAX OCTET STRING (SIZE(4))
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "A bitmask.
 Describes upported capabilities of this node.
 A bit set to 1 for affirmation of supported capability.
 BIT:
 0: Reserved, shall be zero
 1: IsSM
 2: IsNoticeSupported
 3: IsTrapSupported
 4: IsResetSupported

```

5: IsAutomaticMigrationSupported
6: IsSLMappingSupported
7: IsMKeyNVRAM (supports M_Key in NVRAM)
8: IsPKeyNVRAM (supports P_Key in NVRAM)
9: IsLEDInfoSupported
10: IsSMdisabled
11 - 15: Reserved, shall be zero
16: IsConnectionManagementSupported
17: IsSNMPTunnelingSupported
18: Reserved, shall be zero
19: IsDeviceManagementSupported
20: IsVendorClassSupported
21 - 31: Reserved, shall be zero "
::= { smaPortInfoEntry 5 }

```

```

smaPortDiagCode  OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE(2))
    MAX-ACCESS   read-only
    STATUS       current
    DESCRIPTION
        "Diagnostic code, as described in section 14.2.5.6.1."
    ::= { smaPortInfoEntry 6 }

```

```

smaPortMKeyLeasePeriod  OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE(2))
    MAX-ACCESS   read-only
    STATUS       current
    DESCRIPTION
        "Specifies the initial value of the lease period timer in
        seconds. The lease period is the length of time that the
        M_Key Protection bits are to remain non zero after a
        SubnSet(PortInfo) fails a M_Key check. See section 14.2.4
        Management Key."
    ::= { smaPortInfoEntry 7 }

```

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```

smaPortLocalPortNum  OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS   read-only
    STATUS       current
    DESCRIPTION
        "The number of the link port which received this SMP."
    ::= { smaPortInfoEntry 8 }

```

```

smaPortLinkWidthEnabled  OBJECT-TYPE
    SYNTAX      Integer32

```


MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "Enabled link width, indicated as follows:
 0: No State Change (NOP)
 1: 1x
 2: 4x
 3: 1x or 4x
 8: 12x
 9: 1x or 12x
 10: 4x or 12x
 11: 1x, 4x or 12x
 4 - 7, 12 - 254: Reserved (Ignored)
 255: Set to LinkWidthSupported value. When writing this
 field, only legal transitions are valid. See Volume 2."
 ::= { smaPortInfoEntry 9 }

smaPortLinkWidthSupported OBJECT-TYPE

SYNTAX Integer32
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "Supported link width, indicated as follows:
 1: 1x
 3: 1x or 4x
 11: 1x, 4x or 12x
 0, 2, 4-10, 12-255: Reserved "
 ::= { smaPortInfoEntry 10 }

smaPortLinkWidthActive OBJECT-TYPE

SYNTAX Integer32
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "Currently active link width, indicated as follows:
 1: 1x
 2: 4x
 8: 12x
 0, 3, 4-7, 9-255: Reserved "
 ::= { smaPortInfoEntry 11 }

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smaPortLinkSpeedSupported OBJECT-TYPE

SYNTAX Integer32
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION

"Supported link speed, indicated as follows:
 1: 2.5Gbps
 0, 2 - 15: reserved "
 ::= { smaPortInfoEntry 12 }

smaPortState OBJECT-TYPE

SYNTAX INTEGER {
 noStateChange(0),
 down(1),
 initialize(2),
 armed(3),
 active(4),
 reserved(5)
 }

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"Port State. Enumerated as:

0: No State Change (NOP)

1: Down (includes failed links)

2: Initialize

3: Armed

4: Active

5- 15: Reserved - ignored When SM is writing this field,
 only legal transitions are valid. See [section 14.3.6](#) ."

::= { smaPortInfoEntry 13 }

smaPortPortPhys OBJECT-TYPE

SYNTAX INTEGER {
 noStateChange(0),
 sleep(1),
 polling(2),
 disabled(3),
 portConfigurationTraining(4),
 linkUp(5),
 linkErrorRecovery(6),
 reserved(7)
 }

MAX-ACCESS read-only

STATUS current

DESCRIPTION

" 0: No state change

1: Sleep

2: Polling

3: Disabled

4: PortConfigurationTraining

5: LinkUp

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6: LinkErrorRecovery
7 - 15: Reserved - ignored When SM is writing this field, only legal transitions are valid. See Volume 2."

::= { smaPortInfoEntry 14 }

smaPortLinkDownDef OBJECT-TYPE

SYNTAX INTEGER {
noStateChange(0),
sleep(1),
polling(2),
reserved(3)
}

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"LinkDownDefault-State

0: No state change

1: Sleep

2: Polling

3 - 15: Reserved - ignored When writing this field, only legal transitions are valid. See Volume 2. "

::= { smaPortInfoEntry 15 }

smaPortMKeyProtectBits OBJECT-TYPE

SYNTAX Integer32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

" MKey protection bits as described in [section 14.2.4](#)."

::= { smaPortInfoEntry 16 }

smaPortLMC OBJECT-TYPE

SYNTAX Integer32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"LID mask count for multipat support."

::= { smaPortInfoEntry 17 }

smaPortLSActive OBJECT-TYPE

SYNTAX INTEGER {
reserved(0),
x2gps(1)
}

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"Currently active link speed, indicated as follows:

```
        1: 2.5Gbps
        0, 2 - 15: reserved "
 ::= { smaPortInfoEntry 18 }
```

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smaPortLSActiveEnabled OBJECT-TYPE

```
SYNTAX      INTEGER {
                noStateChange(0),
                x2gps(1)
            }
```

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"Enabled link speed, indicated as follows:

0: No State Change (NOP)

1: 2.5 Gbps

2 - 14: Reserved (Ignored)

15: Set to LinkSpeedSupported value

When writing this field, only legal transitions are valid.

See Volume 2."

```
 ::= { smaPortInfoEntry 19 }
```

smaPortNeighborMTU OBJECT-TYPE

```
SYNTAX      INTEGER {
                reserved(0),
                mtu256(1),
                mtu512(2),
                mtu1024(3),
                mtu2048(4),
                mtu4096(5),
                reservedAlso(6)
            }
```

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"Active maximum MTU enabled on this port for transmit:

1: 256

2: 512

3: 1024

4: 2048

5: 4096

0, 6 - 15: reserved "

```
 ::= { smaPortInfoEntry 20 }
```

smaPortMasterSMSL OBJECT-TYPE

```
SYNTAX      Integer32
```

MAX-ACCESS read-only

STATUS current
 DESCRIPTION
 "The administrative SL of the master SM that is managing this port. "
 ::= { smaPortInfoEntry 21 }

smaPortVLCap OBJECT-TYPE
 SYNTAX INTEGER {
 reserved(0),
 vl0(1),
 vl0vl1(2),

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vl0tovl3(3),
 vl0tovl7(4),
 vl0tovl14(5),
 reservedAlso(6)
 }
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "Virtual Lanes supported on this port, indicated as follows:
 1: VL0
 2: VL0, VL1
 3: VL0 - VL3
 4: VL0 - VL7
 5: VL0 - VL14
 0, 6 - 15: reserved "
 ::= { smaPortInfoEntry 22 }

smaPortVLHighLimit OBJECT-TYPE
 SYNTAX Integer32
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "Limit of High Priority component of VL Arbitration Table, as defined in [section 7.6.9](#)."
 ::= { smaPortInfoEntry 23 }

smaPortVLArbitrationHighCap OBJECT-TYPE
 SYNTAX Integer32
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "VL/Weight pairs supported on this port in the VLArbitration table for high priority. Shall be 1 to 64 if more than one data VL is supported on this port, 0 otherwise. See [section 7.6.9](#)."

```
::= { smaPortInfoEntry 24 }
```

smaPortVLArbitrationLowCap OBJECT-TYPE

SYNTAX Integer32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"VL/Weight pairs supported on this port in the VLArbitration table for low priority. Shall be N to 64 if more than one data VL is supported on this port, 0 otherwise, N being the number of data VLs supported. See [section 7.6.9](#)."

```
::= { smaPortInfoEntry 25 }
```

smaPortMTUCapOBJECT-TYPE

SYNTAX INTEGER {
reserved(0),
mtu256(1),
mtu512(2),

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mtu1024(3),
mtu2048(4),
mtu4096(5),
reservedAlso(6)
}

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"Maximum MTU supported by this port.

1: 256
2: 512
3: 1024
4: 2048
5: 4096
0, 6 - 15: reserved "

```
::= { smaPortInfoEntry 26 }
```

smaPortVLStallCount OBJECT-TYPE

SYNTAX Integer32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"Specifies the number of sequential packets dropped that causes the port to enter the VLStalled state. Refer to [section 18.2.4.4](#)"

```
::= { smaPortInfoEntry 27 }
```

smaPortHOQLife OBJECT-TYPE

SYNTAX Integer32
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "Sets the time a packet can live at the head of a
 VL queue. Refer to [section 18.2.5.4](#)"
 ::= { smaPortInfoEntry 28 }

smaPortOpVLs OBJECT-TYPE
 SYNTAX INTEGER {
 noChange(0),
 vl0(1),
 vl0vl1(2),
 vl0tovl3(3),
 vl0tovl7(4),
 vl0tovl14(5),
 reserved(6)
 }
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "Virtual Lanes operational on this port, indicated
 as follows:
 0: No change
 1: VL0

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2: VL0, VL1
 3: VL0 - VL3
 4: VL0 - VL7
 5: VL0 - VL14
 6 - 15: reserved"
 ::= { smaPortInfoEntry 29 }

smaPortPkeyEnfIn OBJECT-TYPE
 SYNTAX Integer32
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "Indicates support of optional partition enforcement. If set
 to one, enables partition enforcement on packets received
 on this port. Zero disables partition enforcement on
 packets received from this port."
 ::= { smaPortInfoEntry 30 }

smaPortPkeyEnfOut OBJECT-TYPE
 SYNTAX Integer32
 MAX-ACCESS read-only

STATUS current

DESCRIPTION

 "Indicates support of optional partition enforcement. If set to one, enables partition enforcement on packets transmitted from this port. Zero disables partition enforcement on packets transmitted from this port."

::= { smaPortInfoEntry 31 }

smaPortFilterRawPktIn OBJECT-TYPE

SYNTAX Integer32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

 "Indicates support of optional raw packet enforcement. If set to 1, raw packets arriving on this port are discarded. Zero disables raw enforcement on packets received from this port. "

::= { smaPortInfoEntry 32 }

smaPortFilterRawPktOut OBJECT-TYPE

SYNTAX Integer32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

 "Indicates support of optional raw packet enforcement. If set to 1, raw packets departing on this port are discarded. Zero disables raw enforcement on packets received from this port. "

::= { smaPortInfoEntry 33 }

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smaPortMKeyViolations OBJECT-TYPE

SYNTAX Integer32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

 "Counts the number of SMP packets that have been received at this port that have had invalid M_Keys, since power-on or reset. Increments till count reaches all 1s and then must be set back to zero to re-enable incrementing. Setting this component to any value other than zero results in undefined behavior; however, it is recommended that any attempt to set the counter to a non-zero value results in it being left unchanged."

::= { smaPortInfoEntry 34 }

smaPortPKeyViolations OBJECT-TYPE

SYNTAX Integer32
MAX-ACCESS read-only
STATUS current
DESCRIPTION

"Counts the number of packets that have been received at this port that have had invalid P_Keys, since power-on or reset. Refer to [section 10.9.4](#) for usage description. Increments till count reaches all 1s and then must be set back to zero to re-enable incrementing. Setting this component to any value other than zero results in undefined behavior; however, it is recommended that any attempt to set the counter to a non-zero value results in it being left unchanged."

::= { smaPortInfoEntry 35 }

smaPortQKeyViolations OBJECT-TYPE

SYNTAX Integer32
MAX-ACCESS read-only
STATUS current
DESCRIPTION

"Counts the number of packets that have been received at this port that have had invalid Q_Keys, since power-on or reset. See [section 10.2.4](#) for usage description. Increments till count reaches all 1s and then must be set back to zero to re-enable incrementing. Setting this component to any value other than zero results in undefined behavior; however, it is recommended that any attempt to set the counter to a non-zero value results in it being left unchanged."

::= { smaPortInfoEntry 36 }

smaPortGUIDCap OBJECT-TYPE

SYNTAX Integer32
MAX-ACCESS read-only
STATUS current
DESCRIPTION

"Number of GUID entries supported in the GUIDInfo attribute for this port."

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::= { smaPortInfoEntry 37 }

smaPortSubnetTimeout OBJECT-TYPE

SYNTAX Integer32
MAX-ACCESS read-only
STATUS current
DESCRIPTION

"Specifies the maximum expected subnet propagation delay, which depends upon the configuration of the switches, to

reach any other port in the subnet and shall also be used to determine the maximum rate which SubnTraps() can be sent from this port."

::= { smaPortInfoEntry 38 }

smaPortRespTimeValue OBJECT-TYPE

SYNTAX Integer32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"Specifies the expected maximum time between the port reception of a SMP and the transmission of the associated response."

::= { smaPortInfoEntry 39 }

smaPortLocalPhysErr OBJECT-TYPE

SYNTAX Integer32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"Threshold value. When the count of marginal link errors exceeds this threshold, the local link integrity error shall be detected as described in [section 7.12.2](#)."

::= { smaPortInfoEntry 40 }

smaPortOvrerrunErr OBJECT-TYPE

SYNTAX Integer32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"Threshold value. When the count of buffer overruns over consecutive flow control update periods exceeds this threshold, the excessive buffer overrun error shall be detected as described in [section 7.12.2](#)."

::= { smaPortInfoEntry 41 }

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-- Multicast Forwarding Table

smaMcastTable OBJECT-TYPE

SYNTAX SEQUENCE OF SmaGuidEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"A tale to contain Multicast tables."

::= { smaMcast 1 }

```
smaMcastEntry    OBJECT-TYPE
    SYNTAX        SmaMcastEntry
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "A conceptual row of the containing information about a
        MultiCastInfo entry."
    INDEX { smaMcastTableBlockIndex }
    ::= { smaMcastTable 1 }
```

```
SmaMcastEntry ::= SEQUENCE {
    smaMcastTableBlockIndex    Integer32,
    smaMcastTableBlock         OCTET STRING (SIZE(32))
}
```

```
-----
--   Multicast table entries
-----
```

```
smaMcastTableBlockIndex  OBJECT-TYPE
    SYNTAX        Integer32
    MAX-ACCESS    read-only
    STATUS        current
    DESCRIPTION
        "Index into the multicast block table, this index starts
        from 1 rather than 0."
    ::= { smaMcastEntry 1}
```

```
smaMcastTableBlock    OBJECT-TYPE
    SYNTAX OCTET      STRING (SIZE(32))
    MAX-ACCESS    read-only
    STATUS        current
    DESCRIPTION
        "List of 32 PortMask Block Elements. 16 bits starting at
        position 16*p of the port mask associated with the
        particular LID. An incoming packet with this LID is
        forwarded to all ports for which the bit in the port mask
        is set to 1. Note that an invalid LID is indicated with
        an all zero PortMask."
    ::= { smaMcastEntry 2}
```

```
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```

```
-----
--   Linear Forwarding Table
-----
```

```
smaLftTable      OBJECT-TYPE
    SYNTAX        SEQUENCE OF SmaLftTableEntry
```

```

MAX-ACCESS    not-accessible
STATUS        current
DESCRIPTION
    "A tale to contain Linear forwarding table entries."
 ::= { smaLft 1 }

smaLftTableEntry OBJECT-TYPE
    SYNTAX      SmaLftTableEntry
    MAX-ACCESS   not-accessible
    STATUS      current
    DESCRIPTION
        "Table entry of LFT blocks."
    INDEX { smaLftTableBlockIndex }
    ::= { smaLftTable 1}

SmaLftTableEntry ::= SEQUENCE {
    smaLftTableBlockIndex    Integer32,
    smaLftTableBlock         OCTET STRING
}

-----
-- Linear Forwarding Table entries
-----

smaLftTableBlockIndex OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS   read-only
    STATUS      current
    DESCRIPTION
        "Index into the linear forwarding table, this index starts
         from 1 rather than 0."
    ::= { smaLftTableEntry 1}

smaLftTableBlock OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE(64))
    MAX-ACCESS   read-only
    STATUS      current
    DESCRIPTION
        "Linear forwarding table block."
    ::= { smaLftTableEntry 2}

-----
-- Random Forwarding Table
-----

smaRandomTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF SmaRandomTableEntry
    MAX-ACCESS   not-accessible
    STATUS      current

```

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DESCRIPTION

"A tale to contain Random forwarding table entries."
 ::= { smaRandom 1 }

smaRandomTableEntry OBJECT-TYPE

SYNTAX SmaRandomTableEntry
MAX-ACCESS not-accessible
STATUS current

DESCRIPTION

"Random FT block index."
 INDEX { smaRandomTableBlockIndex }
 ::= { smaRandomTable 1 }

SmaRandomTableEntry ::= SEQUENCE {
 smaRandomTableBlockIndex Integer32,
 smaRandomTableBlock OCTET STRING
}

-- Random Forwarding Table entries

smaRandomTableBlockIndex OBJECT-TYPE

SYNTAX Integer32
MAX-ACCESS read-only
STATUS current

DESCRIPTION

"Index into the random forwarding table, this index starts
from 1 rather than 0."
 ::= { smaRandomTableEntry 1 }

smaRandomTableBlock OBJECT-TYPE

SYNTAX OCTET STRING (SIZE(64))
MAX-ACCESS read-only
STATUS current

DESCRIPTION

"Random forwarding table datablock."
 ::= { smaRandomTableEntry 2 }

-- sma PkeyInfo Table

smaPkeyTable OBJECT-TYPE

SYNTAX SEQUENCE OF SmaPkeyEntry
MAX-ACCESS not-accessible
STATUS current

DESCRIPTION

"A tale to contain Pkeys to ports mappings."

```
::= { smaPkey 1 }
```

```
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```

```
smaPkeyEntry    OBJECT-TYPE
    SYNTAX      SmaPkeyEntry
    MAX-ACCESS   not-accessible
    STATUS      current
    DESCRIPTION
        "A conceptual row of the containing information about a PKey
        Attribute entry."
    INDEX { ifIndex }
    ::= { smaPkeyTable 1 }
```

```
SmaPkeyEntry ::= SEQUENCE {
    smaPkeyTableVector OCTET STRING
}
```

```
-----
-- PKeyTable Attribute components
-----
```

```
smaPkeyTableVector OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE(64))
    MAX-ACCESS   read-only
    STATUS      current
    DESCRIPTION
        "GUID assigned by the SM on the subnet."
    ::= { smaPkeyEntry 1 }
```

```
-----
-- S1toV1 Attributes Table
-----
```

```
smaSLVTable     OBJECT-TYPE
    SYNTAX      SEQUENCE OF SmaSLVEntry
    MAX-ACCESS   not-accessible
    STATUS      current
    DESCRIPTION
        "A table containing S1 to V1 mappings"
    ::= { smaS1toV1 1 }
```

```
smaSLVEntry     OBJECT-TYPE
    SYNTAX      SmaSLVEntry
    MAX-ACCESS   not-accessible
    STATUS      current
    DESCRIPTION
        "A conceptual row of the table containing information about a
```

```
    particular current sma Port stToVl."  
INDEX { ifIndex }  
::= { smaSLVTable 1 }
```

```
SmaSLVLEntry ::= SEQUENCE {  
    vlToSl0 Integer32,  
    vlToSl1 Integer32,  
    vlToSl2 Integer32,  
    vlToSl3 Integer32,
```

```
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```

```
    vlToSl4 Integer32,  
    vlToSl5 Integer32,  
    vlToSl6 Integer32,  
    vlToSl7 Integer32,  
    vlToSl8 Integer32,  
    vlToSl9 Integer32,  
    vlToSl10 Integer32,  
    vlToSl11 Integer32,  
    vlToSl12 Integer32,  
    vlToSl13 Integer32,  
    vlToSl14 Integer32,  
    vlToSl15 Integer32  
}
```

```
-----  
-- Sl to VL Table Components  
-----
```

```
vlToSl0      OBJECT-TYPE  
    SYNTAX      Integer32  
    MAX-ACCESS  read-only  
    STATUS      current  
    DESCRIPTION  
        "The number of the VL on which packets using SL0 are output.  
        15 forces the packets to be dropped."  
    ::= { smaSLVLEntry 1 }
```

```
vlToSl1      OBJECT-TYPE  
    SYNTAX      Integer32  
    MAX-ACCESS  read-only  
    STATUS      current  
    DESCRIPTION  
        "The VL associated with SL1."  
    ::= { smaSLVLEntry 2 }
```

```
vlToSl2      OBJECT-TYPE  
    SYNTAX      Integer32  
    MAX-ACCESS  read-only
```

STATUS current
DESCRIPTION
"The VL associated with SL2."
::= { smaSLVLEntry 3 }

vlToSl3 OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The VL associated with SL3."
::= { smaSLVLEntry 4 }

vlToSl4 OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS read-only

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STATUS current
DESCRIPTION
"The VL associated with SL4."
::= { smaSLVLEntry 5 }

vlToSl5 OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The VL associated with SL5."
::= { smaSLVLEntry 6 }

vlToSl6 OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The VL associated with SL6."
::= { smaSLVLEntry 7 }

vlToSl7 OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The VL associated with SL7."
::= { smaSLVLEntry 8 }

vlToSl8 OBJECT-TYPE

SYNTAX Integer32
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "The VL associated with SL8."
 ::= { smaSLVLEntry 9 }

vlToSl9 OBJECT-TYPE
 SYNTAX Integer32
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "The VL associated with SL9."
 ::= { smaSLVLEntry 10 }

vlToSl10 OBJECT-TYPE
 SYNTAX Integer32
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "The VL associated with SL10."
 ::= { smaSLVLEntry 11 }

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vlToSl11 OBJECT-TYPE
 SYNTAX Integer32
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "The VL associated with SL11."
 ::= { smaSLVLEntry 12 }

vlToSl12 OBJECT-TYPE
 SYNTAX Integer32
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "The VL associated with SL12."
 ::= { smaSLVLEntry 13 }

vlToSl13 OBJECT-TYPE
 SYNTAX Integer32
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "The VL associated with SL13."
 ::= { smaSLVLEntry 14 }

```

v1ToSl14      OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The VL associated with SL14."
    ::= { smaSLVLEntry 15 }

```

```

v1ToSl15      OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The VL associated with SL15."
    ::= { smaSLVLEntry 16 }

```

```

-----
-- sma GuidInfo Table
-----

```

```

smaGuidIdTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF SmaGuidIdEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A tale to contain Guids to ports mappings."
    ::= { smaGuid 1 }

```

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```

smaGuidIdEntry OBJECT-TYPE
    SYNTAX      SmaGuidIdEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A conceptual row of the containing information about a
        GUIDInfo entry."
    INDEX {
        ifIndex,
        smaAssignedGUID
    }
    ::= { smaGuidIdTable 1 }

```

```

SmaGuidIdEntry ::= SEQUENCE {
    smaAssignedGUID OCTET STRING
}

```

-- SMInfo Attribute components

smaAssignedGUID OBJECT-TYPE
SYNTAX OCTET STRING (SIZE(8))
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"GUID assigned by the SM on the subnet."
::= { smaGuidEntry 1 }

-- TRAPS

smaTrap OBJECT-IDENTITY
STATUS current
DESCRIPTION
"SMA Trap Events."
::= { smaEvent 0 }

smaTrap128 NOTIFICATION-TYPE
STATUS current
DESCRIPTION
"128:Link State of at least one port has changed."
::= { smaTrap 1}

smaTrap129 NOTIFICATION-TYPE
OBJECTS { smaPortLid, smaLocalPortNum }
STATUS current
DESCRIPTION
"129:any Local Link Integrity threshold reached at
<LIDADDR><PORTNO>"
::= { smaTrap 2}

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smaTrap130 NOTIFICATION-TYPE
OBJECTS { smaPortLid, smaLocalPortNum }
STATUS current
DESCRIPTION
"130:any Excessive Buffer Overrun threshold reached at
<LIDADDR><PORTNO>"
::= { smaTrap 3}

smaTrap131 NOTIFICATION-TYPE
OBJECTS { smaPortLid, smaLocalPortNum }

```

STATUS    current
DESCRIPTION
    "131:switch Flow Control Update watchdog timer expired at
      <LIDADDR><PORTNO>"
    ::= { smaTrap 4}

```

```

smaTrap256 NOTIFICATION-TYPE
OBJECTS {  smaPortLid, smaTrapBuffer }
STATUS    current
DESCRIPTION
    "256:any Bad M_Key, <MKEY> from <LIDADDR> attempted <METHOD>
      with <ATTRIBUTEID> and <ATTRIBUTEMODIFIER>."
    ::= { smaTrap 5}

```

```

smaTrap257 NOTIFICATION-TYPE
OBJECTS {  smaPortLid, smaTrapBuffer }
STATUS    current
DESCRIPTION
    "257:any Bad P_Key, <KEY> from <LIDADDR1> /<GIDADDR1>/<QP1> to
      <LIDADDR2>/<GIDADDR2>/<QP2> on <SL>."
    ::= { smaTrap 6}

```

```

smaTrap258 NOTIFICATION-TYPE
OBJECTS {  smaPortLid, smaTrapBuffer }
STATUS    current
DESCRIPTION
    "258:any Bad Q_Key, <KEY> from <LIDADDR1>/<GIDADDR1>/<QP1> to
      <LIDADDR2>/<GIDADDR2>/<QP2> on <SL>."
    ::= { smaTrap 7}

```

END

7. Next Steps

This draft was released early to allow discussion on what a subnet management agent MIB might look like and to solicit comments from the industry. For this reason, this should be considered a strawman proposal, and a work in progress.

Currently this draft is missing

- 1) Descriptive text in the draft giving an overview of the various tables in the MIB

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- 2) Security Consideration [section](#)
- 3) Compliance [Section](#)
- 4) There are many places where appropriate Textual conventions should be used and are not.

- 5) Currently this MIB is rooted directly under experimental.
This should be moved to under the Infiniband tree when that is defined

8. Security Considerations

This section to be added next draft.

9. IANA Considerations

This MIB will probably belong under the Infiniband tree that is defined by the Infiniband Interface MIB[IBIF[IBIF]]

10. Acknowledgements

The author would like to acknowledge Anne Marie Merritt and Bill Strahm for their SNMP assists.

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