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## Integrated Services Management Information Base using SMIPv2

### 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.

### Abstract

This memo defines a portion of the Management Information Base (MIB) for use with network management protocols in TCP/IP-based internets. In particular, it defines objects for managing the the interface attributes defined in the Integrated Services Model. Comments should be made to the Integrated Services Working Group, [int-serv@isi.edu](mailto:int-serv@isi.edu).

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## 1. The SNMPv2 Network Management Framework

The SNMPv2 Network Management Framework consists of four major components. They are:

- o RFC 1441 which defines the SMI, the mechanisms used for describing and naming objects for the purpose of management.
- o STD 17, RFC 1213 defines MIB-II, the core set of managed objects for the Internet suite of protocols.
- o RFC 1445 which defines the administrative and other architectural aspects of the framework.
- o RFC 1448 which defines the protocol used for network access to managed objects.

The Framework permits new objects to be defined for the purpose of experimentation and evaluation.

### 1.1. Object Definitions

Managed objects are accessed via a virtual information store, termed the Management Information Base or MIB. Objects in the MIB are defined using the subset of Abstract Syntax Notation One (ASN.1) defined in the SMI. In particular, each object type is named by an OBJECT IDENTIFIER, an administratively assigned name. The object type together with an object instance serves to uniquely identify a specific instantiation of the object. For human convenience, we often use a textual string, termed the descriptor, to refer to the object type.

## 2. Overview

### 2.1. Textual Conventions

Several new data types are introduced as a textual convention in this MIB document. These textual conventions enhance the readability of the specification and can ease comparison with other specifications if appropriate. It should be noted that the introduction of these textual conventions has no effect on either the syntax nor the semantics of any managed objects. The use of these is merely an

artifact of the explanatory method used. Objects defined in terms of one of these methods are always encoded by means of the rules that define the primitive type. Hence, no changes to the SMI or the SNMP are necessary to accommodate these textual conventions which are adopted merely for the convenience of readers and writers in pursuit of the elusive goal of clear, concise, and unambiguous MIB documents.

## 2.2. Structure of MIB

The MIB is composed of the following sections:

- Integrated Services
- Interface Attributes Table
- Interface Flow Table

## 3. Definitions

```
INTEGRATED-SERVICES-MIB DEFINITIONS ::= BEGIN
```

```
IMPORTS
```

```
    MODULE-IDENTITY, OBJECT-TYPE, Counter32,
    Gauge32, Integer32, mib-2                FROM SNMPv2-SMI
    TimeInterval, TEXTUAL-CONVENTION, RowStatus,
    TruthValue                                FROM SNMPv2-TC
    MODULE-COMPLIANCE, OBJECT-GROUP           FROM SNMPv2-CONF
    ifIndex, InterfaceIndex                   FROM IF-MIB;
```

```
-- This MIB module uses the extended OBJECT-TYPE macro as
-- defined in [9].
```

```
intSrv MODULE-IDENTITY
```

```
    LAST-UPDATED "9511030500Z" -- Thu Aug 28 09:04:13 PDT 1997
    ORGANIZATION "IETF Integrated Services Working Group"
```

```
    CONTACT-INFO
```

```
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```

```

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        Westford, Massachusetts 01886
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E-Mail: jjk@tiac.net"
```

```
DESCRIPTION
```

```
"The MIB module to describe the Integrated Services
```

```
Protocol"
 ::= { mib-2 52 }

intSrvObjects          OBJECT IDENTIFIER ::= { intSrv 1 }
intSrvGenObjects       OBJECT IDENTIFIER ::= { intSrv 2 }
intSrvNotifications   OBJECT IDENTIFIER ::= { intSrv 3 }
intSrvConformance     OBJECT IDENTIFIER ::= { intSrv 4 }

-- Textual Conventions
--

SessionNumber ::= TEXTUAL-CONVENTION
    STATUS      current
    DESCRIPTION
        "The Session Number convention is used for
        numbers identifying sessions or saved PATH or
        RESV information. It is a number in the range
        returned by a TestAndIncr variable, having no
        protocol meaning whatsoever but serving instead
        as simple identifier.

        The alternative was a very complex instance or
        instance object that became unwieldy."
    SYNTAX      INTEGER (0..2147483647)

Protocol ::= TEXTUAL-CONVENTION
    DISPLAY-HINT "d"
    STATUS      current
    DESCRIPTION
        "The value of the IP Protocol field of an IP
        Datagram Header. This identifies the protocol
        layer above IP. For example, the value 6 is
        used for TCP and the value 17 is used for UDP.
        The values of this field are defined in the As-
        signed Numbers RFC."
    SYNTAX      INTEGER (1..255)

SessionType ::= TEXTUAL-CONVENTION
    STATUS      current
    DESCRIPTION
        "The value of the C-Type field of a Session ob-
        ject, as defined in the RSVP specification.
        This value determines the lengths of octet
        strings and use of certain objects such as the
        'port' variables. If the C-Type calls for an
        IP6 address, one would expect all source, des-
```

tination, and next/previous hop addresses to be  
    16 bytes long, and for the ports to be UDP/TCP  
    port numbers, for example."  
SYNTAX    INTEGER (1..255)

Port ::= TEXTUAL-CONVENTION

    DISPLAY-HINT "d"

    STATUS    current

    DESCRIPTION

        "The value of the UDP or TCP Source or Destination Port field, a virtual destination port or generalized port identifier used with the IPSEC Authentication Header or Encapsulating Security Payload, or other session discriminator. If it is not used, the value should be of length 0. This pair, when coupled with the IP Addresses of the source and destination system and the IP protocol field, uniquely identifies a data stream."

SYNTAX    OCTET STRING (SIZE(2..4))

MessageSize ::= TEXTUAL-CONVENTION

    DISPLAY-HINT "d"

    STATUS    current

    DESCRIPTION

        "The size of a message in bytes. This is used to specify the minimum and maximum size of a message along an integrated services route."

SYNTAX    INTEGER (0..'7FFFFFFFF'h)

BitRate ::= TEXTUAL-CONVENTION

    DISPLAY-HINT "d"

    STATUS    current

    DESCRIPTION

        "The rate, in bits/second, that data may move in the context. Applicable contexts minimally include the speed of an interface or virtual circuit, the data rate of a (potentially aggregated) data flow, or the data rate to be allocated for use by a flow."

SYNTAX    INTEGER (0..'7FFFFFFFF'h)

BurstSize ::= TEXTUAL-CONVENTION

    DISPLAY-HINT "d"

    STATUS    current

    DESCRIPTION

"The number of octets of IP Data, including IP Headers, that a stream may send without concern for policing."

SYNTAX INTEGER (0..'7FFFFFFF'h)

QosService ::= TEXTUAL-CONVENTION

STATUS current

DESCRIPTION

"The class of service in use by a flow."

SYNTAX INTEGER {  
    bestEffort (1),               -- Best Effort Service  
    guaranteedDelay (2),       -- Guaranteed Delay  
    controlledLoad (5)       -- Controlled Load  
}

-- The Integrated Services Interface Attributes Database contains  
-- information about resources allocated by resource reservation  
-- protocols, such as RSVP and ST-II.

intSrvIfAttribTable OBJECT-TYPE

SYNTAX SEQUENCE OF IntSrvIfAttribEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"The reservable attributes of the system's interfaces."

::= { intSrvObjects 1 }

intSrvIfAttribEntry OBJECT-TYPE

SYNTAX IntSrvIfAttribEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"The reservable attributes of a given interface."

INDEX { ifIndex }

::= { intSrvIfAttribTable 1 }

IntSrvIfAttribEntry ::=

SEQUENCE {

    intSrvIfAttribAllocatedBits     BitRate,  
    intSrvIfAttribMaxAllocatedBits   BitRate,  
    intSrvIfAttribAllocatedBuffer   BurstSize,  
    intSrvIfAttribFlows             Gauge32,  
    intSrvIfAttribPropagationDelay   Integer32,

```
        intSrvIfAttribStatus          RowStatus
    }

intSrvIfAttribAllocatedBits OBJECT-TYPE
    SYNTAX      BitRate
    UNITS       "Bits per second"
    MAX-ACCESS   read-only
    STATUS      current
    DESCRIPTION
        "The number of bits/second currently allocated
         to reserved sessions on the interface."
    ::= { intSrvIfAttribEntry 1 }

intSrvIfAttribMaxAllocatedBits OBJECT-TYPE
    SYNTAX      BitRate
    UNITS       "Bits per second"
    MAX-ACCESS   read-create
    STATUS      current
    DESCRIPTION
        "The maximum number of bits/second that may be
         allocated to reserved sessions on the inter-
         face."
    ::= { intSrvIfAttribEntry 2 }

intSrvIfAttribAllocatedBuffer OBJECT-TYPE
    SYNTAX      BurstSize
    UNITS       "Bytes"
    MAX-ACCESS   read-only
    STATUS      current
    DESCRIPTION
        "The amount of buffer space required to hold
         the simultaneous burst of all reserved flows on
         the interface."
    ::= { intSrvIfAttribEntry 3 }

intSrvIfAttribFlows OBJECT-TYPE
    SYNTAX      Gauge32
    MAX-ACCESS   read-only
    STATUS      current
    DESCRIPTION
        "The number of reserved flows currently active
         on this interface. A flow can be created ei-
         ther from a reservation protocol (such as RSVP
         or ST-II) or via configuration information."
    ::= { intSrvIfAttribEntry 4 }
```

`intSrvIfAttribPropagationDelay OBJECT-TYPE``SYNTAX Integer32``UNITS "microseconds"``MAX-ACCESS read-create``STATUS current``DESCRIPTION`

"The amount of propagation delay that this interface introduces in addition to that introduced by bit propagation delays."

DEFVAL { 0 }-- by default, interfaces are presumed to add  
-- no extra delays

::= { intSrvIfAttribEntry 5 }

`intSrvIfAttribStatus OBJECT-TYPE``SYNTAX RowStatus``MAX-ACCESS read-create``STATUS current``DESCRIPTION`

"'active' on interfaces that are configured for RSVP."

::= { intSrvIfAttribEntry 6 }

-- The Integrated Services Active Flows Database  
-- lists all flows active on an outgoing interface, including  
-- relevant attributes.

`intSrvFlowTable OBJECT-TYPE``SYNTAX SEQUENCE OF IntSrvFlowEntry``MAX-ACCESS not-accessible``STATUS current``DESCRIPTION`

"Information describing the reserved flows using the system's interfaces."

::= { intSrvObjects 2 }

`intSrvFlowEntry OBJECT-TYPE``SYNTAX IntSrvFlowEntry``MAX-ACCESS not-accessible``STATUS current``DESCRIPTION`

"Information describing the use of a given interface by a given flow. The counter intSrvFlowPoliced starts counting at the installation of the flow."



```

INDEX { intSrvFlowNumber }
::= { intSrvFlowTable 1 }

```

```

IntSrvFlowEntry ::=
    SEQUENCE {
        intSrvFlowNumber          SessionNumber,
        intSrvFlowType            SessionType,
        intSrvFlowOwner           INTEGER,
        intSrvFlowDestAddr       OCTET STRING,
        intSrvFlowSenderAddr     OCTET STRING,
        intSrvFlowDestAddrLength  INTEGER,
        intSrvFlowSenderAddrLength INTEGER,
        intSrvFlowProtocol       Protocol,
        intSrvFlowDestPort       Port,
        intSrvFlowPort           Port,
        intSrvFlowFlowId         INTEGER,
        intSrvFlowInterface      InterfaceIndex,
        intSrvFlowIfAddr         OCTET STRING,
        intSrvFlowRate           BitRate,
        intSrvFlowBurst          BurstSize,
        intSrvFlowWeight         Integer32,
        intSrvFlowQueue          Integer32,
        intSrvFlowMinTU          MessageSize,
        intSrvFlowMaxTU          MessageSize,
        intSrvFlowBestEffort     Counter32,
        intSrvFlowPoliced        Counter32,
        intSrvFlowDiscard        TruthValue,
        intSrvFlowService        QosService,
        intSrvFlowOrder          INTEGER,
        intSrvFlowStatus         RowStatus
    }

```

```

intSrvFlowNumber OBJECT-TYPE
    SYNTAX      SessionNumber
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The number of this flow.  This is for SNMP In-
        dexing purposes only and has no relation to any
        protocol value."
    ::= { intSrvFlowEntry 1 }

```

```

intSrvFlowType OBJECT-TYPE
    SYNTAX      SessionType
    MAX-ACCESS  read-create

```

```
STATUS      current
DESCRIPTION
    "The type of session (IP4, IP6, IP6 with flow
    information, etc)."
```

::= { intSrvFlowEntry 2 }

  

```
intSrvFlowOwner OBJECT-TYPE
    SYNTAX      INTEGER {
                        other(1),
                        rsvp(2),
                        management(3)
                    }
    MAX-ACCESS   read-create
    STATUS      current
    DESCRIPTION
        "The process that installed this flow in the
        queue policy database."
```

::= { intSrvFlowEntry 3 }

  

```
intSrvFlowDestAddr OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE(4..16))
    MAX-ACCESS   read-create
    STATUS      current
    DESCRIPTION
        "The destination address used by all senders in
        this session. This object may not be changed
        when the value of the RowStatus object is 'ac-
        tive'."
```

::= { intSrvFlowEntry 4 }

  

```
intSrvFlowSenderAddr OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE(4..16))
    MAX-ACCESS   read-create
    STATUS      current
    DESCRIPTION
        "The source address of the sender selected by
        this reservation. The value of all zeroes in-
        dicates 'all senders'. This object may not be
        changed when the value of the RowStatus object
        is 'active'."
```

::= { intSrvFlowEntry 5 }

  

```
intSrvFlowDestAddrLength OBJECT-TYPE
    SYNTAX      INTEGER(0..128)
```

MAX-ACCESS read-create  
STATUS current  
DESCRIPTION  
"The length of the destination address in bits.  
This is the CIDR Prefix Length, which for IP4  
hosts and multicast addresses is 32 bits. This  
object may not be changed when the value of the  
RowStatus object is 'active'.  
::= { intSrvFlowEntry 6 }

intSrvFlowSenderAddrLength OBJECT-TYPE  
SYNTAX INTEGER(0..128)  
MAX-ACCESS read-create  
STATUS current  
DESCRIPTION  
"The length of the sender's address in bits.  
This is the CIDR Prefix Length, which for IP4  
hosts and multicast addresses is 32 bits. This  
object may not be changed when the value of the  
RowStatus object is 'active'.  
::= { intSrvFlowEntry 7 }

intSrvFlowProtocol OBJECT-TYPE  
SYNTAX Protocol  
MAX-ACCESS read-create  
STATUS current  
DESCRIPTION  
"The IP Protocol used by a session. This ob-  
ject may not be changed when the value of the  
RowStatus object is 'active'.  
::= { intSrvFlowEntry 8 }

intSrvFlowDestPort OBJECT-TYPE  
SYNTAX Port  
MAX-ACCESS read-create  
STATUS current  
DESCRIPTION  
"The UDP or TCP port number used as a destina-  
tion port for all senders in this session. If  
the IP protocol in use, specified by  
intSrvResvFwdProtocol, is 50 (ESP) or 51 (AH),  
this represents a virtual destination port  
number. A value of zero indicates that the IP  
protocol in use does not have ports. This ob-  
ject may not be changed when the value of the

RowStatus object is 'active'."  
 ::= { intSrvFlowEntry 9 }

intSrvFlowPort OBJECT-TYPE

SYNTAX Port

MAX-ACCESS read-create

STATUS current

DESCRIPTION

"The UDP or TCP port number used as a source port for this sender in this session. If the IP protocol in use, specified by intSrvResvFwdProtocol is 50 (ESP) or 51 (AH), this represents a generalized port identifier (GPI). A value of zero indicates that the IP protocol in use does not have ports. This object may not be changed when the value of the RowStatus object is 'active'."

::= { intSrvFlowEntry 10 }

intSrvFlowFlowId OBJECT-TYPE

SYNTAX INTEGER (0..16777215)

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The flow ID that this sender is using, if this is an IPv6 session."

::= { intSrvFlowEntry 11 }

intSrvFlowInterface OBJECT-TYPE

SYNTAX InterfaceIndex

MAX-ACCESS read-create

STATUS current

DESCRIPTION

"The ifIndex value of the interface on which this reservation exists."

::= { intSrvFlowEntry 12 }

intSrvFlowIfAddr OBJECT-TYPE

SYNTAX OCTET STRING (SIZE(4..16))

MAX-ACCESS read-create

STATUS current

DESCRIPTION

"The IP Address on the ifEntry on which this reservation exists. This is present primarily

to support those interfaces which layer multiple IP Addresses on the interface."  
::= { intSrvFlowEntry 13 }

intSrvFlowRate OBJECT-TYPE

SYNTAX BitRate

UNITS "bits per second"

MAX-ACCESS read-create

STATUS current

DESCRIPTION

"The Reserved Rate of the sender's data stream. If this is a Controlled Load service flow, this rate is derived from the Tspec rate parameter (r). If this is a Guaranteed service flow, this rate is derived from the Rspec clearing rate parameter (R)."

::= { intSrvFlowEntry 14 }

intSrvFlowBurst OBJECT-TYPE

SYNTAX BurstSize

UNITS "bytes"

MAX-ACCESS read-create

STATUS current

DESCRIPTION

"The size of the largest burst expected from the sender at a time.

If this is less than the sender's advertised burst size, the receiver is asking the network to provide flow pacing beyond what would be provided under normal circumstances. Such pacing is at the network's option."

::= { intSrvFlowEntry 15 }

intSrvFlowWeight OBJECT-TYPE

SYNTAX Integer32

MAX-ACCESS read-create

STATUS current

DESCRIPTION

"The weight used to prioritize the traffic. Note that the interpretation of this object is implementation-specific, as implementations vary in their use of weighting procedures."

::= { intSrvFlowEntry 16 }

intSrvFlowQueue OBJECT-TYPE  
SYNTAX Integer32  
MAX-ACCESS read-create  
STATUS current  
DESCRIPTION  
"The number of the queue used by this traffic.  
Note that the interpretation of this object is  
implementation-specific, as implementations  
vary in their use of queue identifiers."  
::= { intSrvFlowEntry 17 }

intSrvFlowMinTU OBJECT-TYPE  
SYNTAX MessageSize  
MAX-ACCESS read-create  
STATUS current  
DESCRIPTION  
"The minimum message size for this flow. The  
policing algorithm will treat smaller messages  
as though they are this size."  
::= { intSrvFlowEntry 18 }

intSrvFlowMaxTU OBJECT-TYPE  
SYNTAX MessageSize  
MAX-ACCESS read-create  
STATUS current  
DESCRIPTION  
"The maximum datagram size for this flow that  
will conform to the traffic specification. This  
value cannot exceed the MTU of the interface."  
::= { intSrvFlowEntry 19 }

intSrvFlowBestEffort OBJECT-TYPE  
SYNTAX Counter32  
MAX-ACCESS read-only  
STATUS current  
DESCRIPTION  
"The number of packets that were remanded to  
best effort service."  
::= { intSrvFlowEntry 20 }

intSrvFlowPoliced OBJECT-TYPE  
SYNTAX Counter32  
MAX-ACCESS read-only  
STATUS current

## DESCRIPTION

"The number of packets policed since the inception of the flow's service."

::= { intSrvFlowEntry 21 }

## intSrvFlowDiscard OBJECT-TYPE

SYNTAX TruthValue

MAX-ACCESS read-create

STATUS current

## DESCRIPTION

"If 'true', the flow is to incur loss when traffic is policed. If 'false', policed traffic is treated as best effort traffic."

DEFVAL { false } -- traffic is, by default, treated as best effort

::= { intSrvFlowEntry 22 }

## intSrvFlowService OBJECT-TYPE

SYNTAX QoSService

MAX-ACCESS read-only

STATUS current

## DESCRIPTION

"The QoS service being applied to this flow."

::= { intSrvFlowEntry 23 }

## intSrvFlowOrder OBJECT-TYPE

SYNTAX INTEGER (0..65535)

MAX-ACCESS read-create

STATUS current

## DESCRIPTION

"In the event of ambiguity, the order in which the classifier should make its comparisons. The row with intSrvFlowOrder=0 is tried first, and comparisons proceed in the order of increasing value. Non-serial implementations of the classifier should emulate this behavior."

::= { intSrvFlowEntry 24 }

## intSrvFlowStatus OBJECT-TYPE

SYNTAX RowStatus

MAX-ACCESS read-create

STATUS current

## DESCRIPTION

"'active' for all active flows. This object

may be used to install static classifier information, delete classifier information, or authorize such."

::= { intSrvFlowEntry 25 }

intSrvFlowNewIndex OBJECT-TYPE

SYNTAX TestAndIncr

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"This object is used to assign values to intSrvFlowNumber as described in 'Textual Conventions for SNMPv2'. The network manager reads the object, and then writes the value back in the SET that creates a new instance of intSrvFlowEntry. If the SET fails with the code 'inconsistentValue', then the process must be repeated; If the SET succeeds, then the object is incremented, and the new instance is created according to the manager's directions."

::= { intSrvGenObjects 1 }

-- conformance information

intSrvGroups OBJECT IDENTIFIER ::= { intSrvConformance 1 }

intSrvCompliances OBJECT IDENTIFIER ::= { intSrvConformance 2 }

-- compliance statements

intSrvCompliance MODULE-COMPLIANCE

STATUS current

DESCRIPTION

"The compliance statement "

MODULE -- this module

MANDATORY-GROUPS { intSrvIfAttribGroup, intSrvFlowsGroup }

OBJECT intSrvFlowType

MIN-ACCESS read-only

DESCRIPTION

"read-create access is not required. This may be read-only."

OBJECT intSrvFlowOwner

MIN-ACCESS read-only



## DESCRIPTION

"read-create access is not required. This may be read-only."

OBJECT           intSrvFlowDestAddr  
MIN-ACCESS read-only

## DESCRIPTION

"read-create access is not required. This may be read-only."

OBJECT           intSrvFlowSenderAddr  
MIN-ACCESS read-only

## DESCRIPTION

"read-create access is not required. This may be read-only."

OBJECT           intSrvFlowDestAddrLength  
MIN-ACCESS read-only

## DESCRIPTION

"read-create access is not required. This may be read-only."

OBJECT           intSrvFlowSenderAddrLength  
MIN-ACCESS read-only

## DESCRIPTION

"read-create access is not required. This may be read-only."

OBJECT           intSrvFlowProtocol  
MIN-ACCESS read-only

## DESCRIPTION

"read-create access is not required. This may be read-only."

OBJECT           intSrvFlowDestPort  
MIN-ACCESS read-only

## DESCRIPTION

"read-create access is not required. This may be read-only."

OBJECT           intSrvFlowPort  
MIN-ACCESS read-only

## DESCRIPTION

"read-create access is not required. This may be read-only."

OBJECT           intSrvFlowFlowId  
MIN-ACCESS not-accessible

## DESCRIPTION

"This object is needed only in a system that implements IPv6."

OBJECT           intSrvFlowInterface

MIN-ACCESS read-only

## DESCRIPTION

"read-create access is not required. This may be read-only."

OBJECT           intSrvFlowRate

MIN-ACCESS read-only

## DESCRIPTION

"read-create access is not required. This may be read-only."

OBJECT           intSrvFlowBurst

MIN-ACCESS read-only

## DESCRIPTION

"read-create access is not required. This may be read-only."

OBJECT           intSrvFlowWeight

MIN-ACCESS read-only

## DESCRIPTION

"read-create access is not required. This may be read-only."

OBJECT           intSrvFlowQueue

MIN-ACCESS read-only

## DESCRIPTION

"read-create access is not required. This may be read-only."

OBJECT           intSrvFlowMinTU

MIN-ACCESS read-only

## DESCRIPTION

"read-create access is not required. This may be read-only."

OBJECT           intSrvFlowMaxTU

MIN-ACCESS read-only

## DESCRIPTION

"read-create access is not required. This may be read-only."

OBJECT           intSrvFlowStatus

MIN-ACCESS read-only

## DESCRIPTION

"read-create access is not required. This may be read-only."

::= { intSrvCompliances 1 }

## intSrvIfAttribGroup OBJECT-GROUP

OBJECTS {  
    intSrvIfAttribAllocatedBits, intSrvIfAttribMaxAllocatedBits,  
    intSrvIfAttribAllocatedBuffer, intSrvIfAttribFlows,  
    intSrvIfAttribPropagationDelay, intSrvIfAttribStatus  
}

STATUS current

## DESCRIPTION

"These objects are required for Systems supporting the Integrated Services Architecture."

::= { intSrvGroups 1 }

## intSrvFlowsGroup OBJECT-GROUP

OBJECTS {  
    intSrvFlowType, intSrvFlowOwner, intSrvFlowDestAddr,  
    intSrvFlowSenderAddr, intSrvFlowDestAddrLength,  
    intSrvFlowSenderAddrLength, intSrvFlowProtocol,  
    intSrvFlowDestPort, intSrvFlowPort, intSrvFlowInterface,  
    intSrvFlowBestEffort, intSrvFlowRate, intSrvFlowBurst,  
    intSrvFlowWeight, intSrvFlowQueue, intSrvFlowMinTU,  
    intSrvFlowDiscard, intSrvFlowPoliced, intSrvFlowService,  
    intSrvFlowIfAddr, intSrvFlowOrder, intSrvFlowStatus  
}

STATUS current

## DESCRIPTION

"These objects are required for Systems supporting the Integrated Services Architecture."

::= { intSrvGroups 2 }

END

#### 4. Security Considerations

The use of an SNMP SET results in an RSVP or Integrated Services reservation under rules that are different compared to if the reservation was negotiated using RSVP. However, no other security considerations exist other than those imposed by SNMP itself.

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