

**RSVP Management Information Base
draft-ietf-rsvp-v2-mib-00.txt**

Tue Oct 7 12:01:03 PDT 1997

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1. Status of this Memo

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2. 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 Resource Reservation Protocol (RSVP) within the interface attributes defined in the Integrated Services Model. Thus, the Integrated Services MIB is directly relevant to and cross-referenced by this MIB. Comments should be made to the RSVP Working Group, rsvp@isi.edu.

This memo does not, in its draft form, specify a standard for the Internet community.

3. 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 [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.

3.1. 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.

4. Overview

4.1. 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 the 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.

4.2. Structure of MIB

The MIB is composed of the following sections:

- General Objects
- Session Statistics Table
- Session Sender Table
- Reservation Requests Received Table
- Reservation Requests Forwarded Table
- RSVP Interface Attributes Table
- RSVP Neighbor Table

As a general rule, it is difficult in SNMP to describe arbitrarily long or complex messages; this MIB therefore seeks to describe the Path State Database and the Reservation State Database as though each flow and filter description received in an aggregate message had been received in a separate reservation message.

Thus, if a RESV message is received for session 224.1.2.3+UDP+4455 with two filter/flow spec groups describing a sender 1.2.3.4 and another sender 1.2.7.8, these two will show in the MIB as two separate rows: one for 224.1.2.3+UDP+4455 from 1.2.3.4 and the other for 224.1.2.3+UDP+4455 from 1.2.7.8.

4.3. Semantics of Writing the Path and Reservation State Databases

The path and reservation state tables are writeable. Writing into the Path and Reservation State databases allows one to perform RSVP reservations without authenticating through RSVP mechanisms, but rather through SNMP mechanisms. State created in this way by SNMP does not time out and cannot be deleted by receiving an RSVP teardown message; it can only be deleted by SNMP. Deletion is accomplished by writing 'destroy' to the associated Row Status object, and this will initiate a

teardown message as if the state had timed out.

4.4. Intended use of Flow Notifications

4.4.1. The lostFlow Notification

The Lost Flow notification is an asynchronous event that signifies that a flow is no longer being observed.

4.4.2. The newFlow Notification

The newFlow Notification defined in this MIB can be used to advise a network management system of the state of a flow.

5. Definitions

RSVP-MIB DEFINITIONS ::= BEGIN

IMPORTS

```
MODULE-IDENTITY, OBJECT-TYPE, Gauge32,
NOTIFICATION-TYPE, Integer32, mib-2
                                FROM SNMPv2-SMI
TEXTUAL-CONVENTION, TruthValue, RowStatus,
TimeStamp, TestAndIncr, TimeInterval
                                FROM SNMPv2-TC
MODULE-COMPLIANCE, OBJECT-GROUP,
NOTIFICATION-GROUP              FROM SNMPv2-CONF
Port, SessionNumber, SessionType,
Protocol, QoSService, intSrvFlowStatus,
MessageSize, BitRate, BurstSize  FROM INTEGRATED-SERVICES-
MIB
ifIndex, InterfaceIndex          FROM IF-MIB;
```


rsvp MODULE-IDENTITY

LAST-UPDATED "9710071901Z" -- Tue Oct 7 12:01:03 PDT 1997

ORGANIZATION "IETF RSVP Working Group"

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DESCRIPTION

"The MIB module to describe the RSVP Protocol"
 ::= { mib-2 51 }

rsvpObjects OBJECT IDENTIFIER ::= { rsvp 1 } -- tables
 rsvpGenObjects OBJECT IDENTIFIER ::= { rsvp 2 } -- global objects
 rsvpNotificationsPrefix OBJECT IDENTIFIER ::= { rsvp 3 } -- traps
 rsvpConformance OBJECT IDENTIFIER ::= { rsvp 4 } -- conformance

RsvpEncapsulation ::= TEXTUAL-CONVENTION

STATUS current

DESCRIPTION

"This indicates the encapsulation that an RSVP
 Neighbor is perceived to be using."

SYNTAX INTEGER {
 ip (1), -- IP Protocol 46
 udp (2), -- UDP Encapsulation
 both (3) -- neighbor is using both encapsulations
 }


```
RefreshInterval ::= TEXTUAL-CONVENTION
    DISPLAY-HINT "d"
    STATUS      current
    DESCRIPTION
        "The number of milliseconds that are expected
        to elapse between refreshes of path or reserva-
        tion state. Unrefreshed Path or reservation
        state is removed after a small multiple of this
        period."
    SYNTAX      INTEGER (0..'7FFFFFFF'h)
```

```
--      The RSVP Session Statistics Database displays statistics
--      relating to the number of senders and receivers in each
--      session.
```

```
rsvpSessionTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF RsvpSessionEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A table of all sessions seen by a given sys-
        tem."
    ::= { rsvpObjects 1 }
```

```
rsvpSessionEntry OBJECT-TYPE
    SYNTAX      RsvpSessionEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A single session seen by a given system."
    INDEX { rsvpSessionNumber }
    ::= { rsvpSessionTable 1 }
```

```
RsvpSessionEntry ::=
    SEQUENCE {
        rsvpSessionNumber      SessionNumber,
        rsvpSessionType        SessionType,
        rsvpSessionDestAddr    OCTET STRING,
        rsvpSessionDestAddrLength  INTEGER,
        rsvpSessionProtocol    Protocol,
        rsvpSessionPort        Port,
        rsvpSessionSenders     Gauge32,
        rsvpSessionReceivers   Gauge32,
        rsvpSessionRequests    Gauge32
    }
```


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

rsvpSessionType OBJECT-TYPE
SYNTAX SessionType
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The type of session (IP4, IP6, IP6 with flow
information, etc)."
 ::= { rsvpSessionEntry 2 }

rsvpSessionDestAddr OBJECT-TYPE
SYNTAX OCTET STRING (SIZE(4..16))
MAX-ACCESS read-only
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'. "
 ::= { rsvpSessionEntry 3 }

rsvpSessionDestAddrLength OBJECT-TYPE
SYNTAX INTEGER(0..128)
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The CIDR prefix length of the session address,
which is 32 for IP4 host and multicast ad-
dresses, and 128 for IP6 addresses. This ob-
ject may not be changed when the value of the
RowStatus object is 'active'. "
 ::= { rsvpSessionEntry 4 }

rsvpSessionProtocol OBJECT-TYPE

SYNTAX Protocol
MAX-ACCESS read-only
STATUS current

DESCRIPTION

"The IP Protocol used by this session. This object may not be changed when the value of the RowStatus object is 'active'."

::= { rsvpSessionEntry 5 }

rsvpSessionPort OBJECT-TYPE

SYNTAX Port
MAX-ACCESS read-only
STATUS current

DESCRIPTION

"The UDP or TCP port number used as a destination port for all senders in this session. If the IP protocol in use, specified by rsvpSenderProtocol, 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 object may not be changed when the value of the RowStatus object is 'active'."

::= { rsvpSessionEntry 6 }

rsvpSessionSenders OBJECT-TYPE

SYNTAX Gauge32
MAX-ACCESS read-only
STATUS current

DESCRIPTION

"The number of distinct senders currently known to be part of this session."

::= { rsvpSessionEntry 7 }

rsvpSessionReceivers OBJECT-TYPE

SYNTAX Gauge32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The number of reservations being requested of
this system for this session."

::= { rsvpSessionEntry 8 }

rsvpSessionRequests OBJECT-TYPE

SYNTAX Gauge32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The number of reservation requests this system
is sending upstream for this session."

::= { rsvpSessionEntry 9 }

rsvpBadPackets OBJECT-TYPE

SYNTAX Gauge32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"This object keeps a count of the number of bad
RSVP packets received."

::= { rsvpGenObjects 1 }


```
-- The RSVP Session Sender Database contains the information
-- displayed by senders regarding their potential contribution
-- to session data content. It is in essence a list of the
-- valid PATH messages that the RSVP Router or Host is receiving.
```

rsvpSenderNewIndex OBJECT-TYPE

SYNTAX TestAndIncr

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"This object is used to assign values to rsvpSenderNumber 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 rsvpSenderEntry. 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."

::= { rsvpGenObjects 2 }

rsvpSenderTable OBJECT-TYPE

SYNTAX SEQUENCE OF RsvpSenderEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"Information describing the state information displayed by senders in PATH messages."

::= { rsvpObjects 2 }

rsvpSenderEntry OBJECT-TYPE

SYNTAX RsvpSenderEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"Information describing the state information displayed by a single sender's PATH message."

INDEX { rsvpSessionNumber, rsvpSenderNumber }

::= { rsvpSenderTable 1 }

RsvpSenderEntry ::=


```
SEQUENCE {
    rsvpSenderNumber          SessionNumber,
    rsvpSenderType           SessionType,
    rsvpSenderDestAddr       OCTET STRING,
    rsvpSenderAddr           OCTET STRING,
    rsvpSenderDestAddrLength INTEGER,
    rsvpSenderAddrLength     INTEGER,
    rsvpSenderProtocol       Protocol,
    rsvpSenderDestPort       Port,
    rsvpSenderPort           Port,
    rsvpSenderFlowId         INTEGER,
    rsvpSenderHopAddr        OCTET STRING,
    rsvpSenderHopLih         Integer32,
    rsvpSenderInterface      InterfaceIndex,
    rsvpSenderTSpecRate      BitRate,
    rsvpSenderTSpecPeakRate  BitRate,
    rsvpSenderTSpecBurst     BurstSize,
    rsvpSenderTSpecMinTU     MessageSize,
    rsvpSenderTSpecMaxTU     MessageSize,
    rsvpSenderInterval       RefreshInterval,
    rsvpSenderRSVPHop        TruthValue,
    rsvpSenderLastChange     TimeStamp,
    rsvpSenderPolicy          OCTET STRING,
    rsvpSenderAdspecBreak    TruthValue,
    rsvpSenderAdspecHopCount INTEGER,
    rsvpSenderAdspecPathBw   BitRate,
    rsvpSenderAdspecMinLatency Integer32,
    rsvpSenderAdspecMtu      INTEGER,
    rsvpSenderAdspecGuaranteedSvc TruthValue,
    rsvpSenderAdspecGuaranteedBreak TruthValue,
    rsvpSenderAdspecGuaranteedCtot Integer32,
    rsvpSenderAdspecGuaranteedDtot Integer32,
    rsvpSenderAdspecGuaranteedCsum Integer32,
    rsvpSenderAdspecGuaranteedDsum Integer32,
    rsvpSenderAdspecGuaranteedHopCount INTEGER,
    rsvpSenderAdspecGuaranteedPathBw BitRate,
    rsvpSenderAdspecGuaranteedMinLatency Integer32,
    rsvpSenderAdspecGuaranteedMtu INTEGER,
    rsvpSenderAdspecCtrlLoadSvc TruthValue,
    rsvpSenderAdspecCtrlLoadBreak TruthValue,
    rsvpSenderAdspecCtrlLoadHopCount INTEGER,
    rsvpSenderAdspecCtrlLoadPathBw BitRate,
    rsvpSenderAdspecCtrlLoadMinLatency Integer32,
    rsvpSenderAdspecCtrlLoadMtu INTEGER,
    rsvpSenderStatus         RowStatus,
```



```
    rsvpSenderTTL                               INTEGER
}

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

rsvpSenderType OBJECT-TYPE
    SYNTAX      SessionType
    MAX-ACCESS  read-create
    STATUS      current
    DESCRIPTION
        "The type of session (IP4, IP6, IP6 with flow
        information, etc)."
```



```
rsvpSenderAddr OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE(4..16))
    MAX-ACCESS  read-create
    STATUS      current
    DESCRIPTION
        "The source address used by this sender in this
        session.  This object may not be changed when
        the value of the RowStatus object is 'active'."
    ::= { rsvpSenderEntry 4 }
```

```
rsvpSenderDestAddrLength 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'."
    ::= { rsvpSenderEntry 5 }
```

```
rsvpSenderAddrLength 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'."
    ::= { rsvpSenderEntry 6 }
```


rsvpSenderProtocol OBJECT-TYPE

SYNTAX Protocol
MAX-ACCESS read-create
STATUS current

DESCRIPTION

"The IP Protocol used by this session. This object may not be changed when the value of the RowStatus object is 'active'."

::= { rsvpSenderEntry 7 }

rsvpSenderDestPort OBJECT-TYPE

SYNTAX Port
MAX-ACCESS read-create
STATUS current

DESCRIPTION

"The UDP or TCP port number used as a destination port for all senders in this session. If the IP protocol in use, specified by rsvpSenderProtocol, 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 object may not be changed when the value of the RowStatus object is 'active'."

::= { rsvpSenderEntry 8 }

rsvpSenderPort 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 rsvpSenderProtocol 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'."

::= { rsvpSenderEntry 9 }

rsvpSenderFlowId 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."
::= { rsvpSenderEntry 10 }

rsvpSenderHopAddr OBJECT-TYPE
SYNTAX OCTET STRING (SIZE(4..16))
MAX-ACCESS read-create
STATUS current
DESCRIPTION
"The address used by the previous RSVP hop
(which may be the original sender)."
::= { rsvpSenderEntry 11 }

rsvpSenderHopLih OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS read-create
STATUS current
DESCRIPTION
"The Logical Interface Handle used by the pre-
vious RSVP hop (which may be the original
sender)."
::= { rsvpSenderEntry 12 }

rsvpSenderInterface OBJECT-TYPE
SYNTAX InterfaceIndex
MAX-ACCESS read-create
STATUS current
DESCRIPTION
"The ifIndex value of the interface on which
this PATH message was most recently received."
::= { rsvpSenderEntry 13 }

rsvpSenderTSpecRate OBJECT-TYPE

SYNTAX BitRate
UNITS "bits per second"
MAX-ACCESS read-create
STATUS current
DESCRIPTION

"The Average Bit Rate of the sender's data stream. Within a transmission burst, the arrival rate may be as fast as rsvpSenderTSpecPeakRate (if supported by the service model); however, averaged across two or more burst intervals, the rate should not exceed rsvpSenderTSpecRate.

Note that this is a prediction, often based on the general capability of a type of codec or particular encoding; the measured average rate may be significantly lower."

::= { rsvpSenderEntry 14 }

rsvpSenderTSpecPeakRate OBJECT-TYPE

SYNTAX BitRate
UNITS "bits per second"
MAX-ACCESS read-create
STATUS current
DESCRIPTION

"The Peak Bit Rate of the sender's data stream. Traffic arrival is not expected to exceed this rate at any time, apart from the effects of jitter in the network. If not specified in the TSpec, this returns zero or noSuchValue."

::= { rsvpSenderEntry 15 }

rsvpSenderTSpecBurst 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."

::= { rsvpSenderEntry 16 }

rsvpSenderTSpecMinTU 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."

::= { rsvpSenderEntry 17 }

rsvpSenderTSpecMaxTU OBJECT-TYPE

SYNTAX MessageSize

MAX-ACCESS read-create

STATUS current

DESCRIPTION

"The maximum message size for this flow. The admission algorithm will reject TSpecs whose Maximum Transmission Unit, plus the interface headers, exceed the interface MTU."

::= { rsvpSenderEntry 18 }

rsvpSenderInterval OBJECT-TYPE

SYNTAX RefreshInterval

MAX-ACCESS read-create

STATUS current

DESCRIPTION

"The interval between refresh messages as advertised by the Previous Hop."

::= { rsvpSenderEntry 19 }

rsvpSenderRSVPHop OBJECT-TYPE

SYNTAX TruthValue

MAX-ACCESS read-create

STATUS current

DESCRIPTION

"If TRUE, the node believes that the previous IP hop is an RSVP hop. If FALSE, the node believes that the previous IP hop may not be an RSVP hop."

::= { rsvpSenderEntry 20 }

rsvpSenderLastChange OBJECT-TYPE

SYNTAX TimeStamp
MAX-ACCESS read-only
STATUS current

DESCRIPTION

"The time of the last change in this PATH message; This is either the first time it was received or the time of the most recent change in parameters."

::= { rsvpSenderEntry 21 }

rsvpSenderPolicy OBJECT-TYPE

SYNTAX OCTET STRING (SIZE(4..65536))
MAX-ACCESS read-create
STATUS current

DESCRIPTION

"The contents of the policy object, displayed as an uninterpreted string of octets, including the object header. In the absence of such an object, this should be of zero length."

::= { rsvpSenderEntry 22 }

rsvpSenderAdspecBreak OBJECT-TYPE

SYNTAX TruthValue
MAX-ACCESS read-create
STATUS current

DESCRIPTION

"The global break bit general characterization parameter from the ADSPEC. If TRUE, at least one non-IS hop was detected in the path. If FALSE, no non-IS hops were detected."

::= { rsvpSenderEntry 23 }

rsvpSenderAdspecHopCount OBJECT-TYPE

SYNTAX INTEGER (0..65535)

MAX-ACCESS read-create

STATUS current

DESCRIPTION

"The hop count general characterization parameter from the ADSPEC. A return of zero or noSuchValue indicates one of the following conditions:

the invalid bit was set

the parameter was not present"

::= { rsvpSenderEntry 24 }

rsvpSenderAdspecPathBw OBJECT-TYPE

SYNTAX BitRate

UNITS "bits per second"

MAX-ACCESS read-create

STATUS current

DESCRIPTION

"The path bandwidth estimate general characterization parameter from the ADSPEC. A return of zero or noSuchValue indicates one of the following conditions:

the invalid bit was set

the parameter was not present"

::= { rsvpSenderEntry 25 }

rsvpSenderAdspecMinLatency OBJECT-TYPE

SYNTAX Integer32
UNITS "microseconds"
MAX-ACCESS read-create
STATUS current

DESCRIPTION

"The minimum path latency general characterization parameter from the ADSPEC. A return of zero or noSuchValue indicates one of the following conditions:

the invalid bit was set
the parameter was not present"

::= { rsvpSenderEntry 26 }

rsvpSenderAdspecMtu OBJECT-TYPE

SYNTAX INTEGER (0..65535)
UNITS "bytes"
MAX-ACCESS read-create
STATUS current

DESCRIPTION

"The composed Maximum Transmission Unit general characterization parameter from the ADSPEC. A return of zero or noSuchValue indicates one of the following conditions:

the invalid bit was set
the parameter was not present"

::= { rsvpSenderEntry 27 }

rsvpSenderAdspecGuaranteedSvc OBJECT-TYPE

SYNTAX TruthValue
MAX-ACCESS read-create
STATUS current

DESCRIPTION

"If TRUE, the ADSPEC contains a Guaranteed Service fragment. If FALSE, the ADSPEC does not contain a Guaranteed Service fragment."

::= { rsvpSenderEntry 28 }

rsvpSenderAdspecGuaranteedBreak OBJECT-TYPE

SYNTAX TruthValue
MAX-ACCESS read-create
STATUS current

DESCRIPTION

"If TRUE, the Guaranteed Service fragment has its 'break' bit set, indicating that one or more nodes along the path do not support the guaranteed service. If FALSE, and rsvpSenderAdspecGuaranteedSvc is TRUE, the 'break' bit is not set.

If rsvpSenderAdspecGuaranteedSvc is FALSE, this returns FALSE or noSuchValue."

::= { rsvpSenderEntry 29 }

rsvpSenderAdspecGuaranteedCtot OBJECT-TYPE

SYNTAX Integer32
UNITS "bytes"
MAX-ACCESS read-create
STATUS current

DESCRIPTION

"If rsvpSenderAdspecGuaranteedSvc is TRUE, this is the end-to-end composed value for the guaranteed service 'C' parameter. A return of zero or noSuchValue indicates one of the following conditions:

the invalid bit was set
the parameter was not present

If rsvpSenderAdspecGuaranteedSvc is FALSE, this returns zero or noSuchValue."

::= { rsvpSenderEntry 30 }

rsvpSenderAdspecGuaranteedDtot OBJECT-TYPE

SYNTAX Integer32
UNITS "microseconds"
MAX-ACCESS read-create
STATUS current

DESCRIPTION

"If rsvpSenderAdspecGuaranteedSvc is TRUE, this is the end-to-end composed value for the guaranteed service 'D' parameter. A return of zero or noSuchValue indicates one of the following conditions:

the invalid bit was set
the parameter was not present

If rsvpSenderAdspecGuaranteedSvc is FALSE, this returns zero or noSuchValue."

::= { rsvpSenderEntry 31 }

rsvpSenderAdspecGuaranteedCsum OBJECT-TYPE

SYNTAX Integer32
UNITS "bytes"
MAX-ACCESS read-create
STATUS current

DESCRIPTION

"If rsvpSenderAdspecGuaranteedSvc is TRUE, this is the composed value for the guaranteed service 'C' parameter since the last reshaping point. A return of zero or noSuchValue indicates one of the following conditions:

the invalid bit was set
the parameter was not present

If rsvpSenderAdspecGuaranteedSvc is FALSE, this returns zero or noSuchValue."

::= { rsvpSenderEntry 32 }

rsvpSenderAdspecGuaranteedDsum OBJECT-TYPE

SYNTAX Integer32
UNITS "microseconds"
MAX-ACCESS read-create
STATUS current

DESCRIPTION

"If rsvpSenderAdspecGuaranteedSvc is TRUE, this is the composed value for the guaranteed service 'D' parameter since the last reshaping point. A return of zero or noSuchValue indicates one of the following conditions:

the invalid bit was set
the parameter was not present

If rsvpSenderAdspecGuaranteedSvc is FALSE, this returns zero or noSuchValue."

::= { rsvpSenderEntry 33 }

rsvpSenderAdspecGuaranteedHopCount OBJECT-TYPE

SYNTAX INTEGER (0..65535)
MAX-ACCESS read-create
STATUS current

DESCRIPTION

"If rsvpSenderAdspecGuaranteedSvc is TRUE, this is the service-specific override of the hop count general characterization parameter from the ADSPEC. A return of zero or noSuchValue indicates one of the following conditions:

the invalid bit was set
the parameter was not present

If rsvpSenderAdspecGuaranteedSvc is FALSE, this returns zero or noSuchValue."

::= { rsvpSenderEntry 34 }

rsvpSenderAdspecGuaranteedPathBw OBJECT-TYPE

SYNTAX BitRate
UNITS "bits per second"
MAX-ACCESS read-create
STATUS current

DESCRIPTION

"If rsvpSenderAdspecGuaranteedSvc is TRUE, this is the service-specific override of the path bandwidth estimate general characterization parameter from the ADSPEC. A return of zero or noSuchValue indicates one of the following conditions:

the invalid bit was set
the parameter was not present

If rsvpSenderAdspecGuaranteedSvc is FALSE, this returns zero or noSuchValue."

::= { rsvpSenderEntry 35 }

rsvpSenderAdspecGuaranteedMinLatency OBJECT-TYPE

SYNTAX Integer32
UNITS "microseconds"
MAX-ACCESS read-create
STATUS current

DESCRIPTION

"If rsvpSenderAdspecGuaranteedSvc is TRUE, this is the service-specific override of the minimum path latency general characterization parameter from the ADSPEC. A return of zero or noSuchValue indicates one of the following conditions:

the invalid bit was set
the parameter was not present

If rsvpSenderAdspecGuaranteedSvc is FALSE, this returns zero or noSuchValue."

::= { rsvpSenderEntry 36 }

rsvpSenderAdspecGuaranteedMtu OBJECT-TYPE

SYNTAX INTEGER (0..65535)

UNITS "bytes"

MAX-ACCESS read-create

STATUS current

DESCRIPTION

"If rsvpSenderAdspecGuaranteedSvc is TRUE, this is the service-specific override of the composed Maximum Transmission Unit general characterization parameter from the ADSPEC. A return of zero or noSuchValue indicates one of the following conditions:

the invalid bit was set
the parameter was not present

If rsvpSenderAdspecGuaranteedSvc is FALSE, this returns zero or noSuchValue."

::= { rsvpSenderEntry 37 }

rsvpSenderAdspecCtrlLoadSvc OBJECT-TYPE

SYNTAX TruthValue

MAX-ACCESS read-create

STATUS current

DESCRIPTION

"If TRUE, the ADSPEC contains a Controlled Load Service fragment. If FALSE, the ADSPEC does not contain a Controlled Load Service fragment."

::= { rsvpSenderEntry 38 }

rsvpSenderAdspecCtrlLoadBreak OBJECT-TYPE

SYNTAX TruthValue
MAX-ACCESS read-create
STATUS current

DESCRIPTION

"If TRUE, the Controlled Load Service fragment has its 'break' bit set, indicating that one or more nodes along the path do not support the controlled load service. If FALSE, and rsvpSenderAdspecCtrlLoadSvc is TRUE, the 'break' bit is not set.

If rsvpSenderAdspecCtrlLoadSvc is FALSE, this returns FALSE or noSuchValue."

::= { rsvpSenderEntry 39 }

rsvpSenderAdspecCtrlLoadHopCount OBJECT-TYPE

SYNTAX INTEGER (0..65535)
MAX-ACCESS read-create
STATUS current

DESCRIPTION

"If rsvpSenderAdspecCtrlLoadSvc is TRUE, this is the service-specific override of the hop count general characterization parameter from the ADSPEC. A return of zero or noSuchValue indicates one of the following conditions:

- the invalid bit was set
- the parameter was not present

If rsvpSenderAdspecCtrlLoadSvc is FALSE, this returns zero or noSuchValue."

::= { rsvpSenderEntry 40 }

rsvpSenderAdspecCtrlLoadPathBw OBJECT-TYPE

SYNTAX BitRate
UNITS "bits per second"
MAX-ACCESS read-create
STATUS current

DESCRIPTION

"If rsvpSenderAdspecCtrlLoadSvc is TRUE, this is the service-specific override of the path bandwidth estimate general characterization parameter from the ADSPEC. A return of zero or noSuchValue indicates one of the following conditions:

 the invalid bit was set
 the parameter was not present

If rsvpSenderAdspecCtrlLoadSvc is FALSE, this returns zero or noSuchValue."

::= { rsvpSenderEntry 41 }

rsvpSenderAdspecCtrlLoadMinLatency OBJECT-TYPE

SYNTAX Integer32
UNITS "microseconds"
MAX-ACCESS read-create
STATUS current

DESCRIPTION

"If rsvpSenderAdspecCtrlLoadSvc is TRUE, this is the service-specific override of the minimum path latency general characterization parameter from the ADSPEC. A return of zero or noSuchValue indicates one of the following conditions:

 the invalid bit was set
 the parameter was not present

If rsvpSenderAdspecCtrlLoadSvc is FALSE, this returns zero or noSuchValue."

::= { rsvpSenderEntry 42 }

rsvpSenderAdspecCtrlLoadMtu OBJECT-TYPE

SYNTAX INTEGER (0..65535)

UNITS "bytes"

MAX-ACCESS read-create

STATUS current

DESCRIPTION

"If rsvpSenderAdspecCtrlLoadSvc is TRUE, this is the service-specific override of the composed Maximum Transmission Unit general characterization parameter from the ADSPEC. A return of zero or noSuchValue indicates one of the following conditions:

the invalid bit was set
the parameter was not present

If rsvpSenderAdspecCtrlLoadSvc is FALSE, this returns zero or noSuchValue."

::= { rsvpSenderEntry 43 }

rsvpSenderStatus OBJECT-TYPE

SYNTAX RowStatus

MAX-ACCESS read-create

STATUS current

DESCRIPTION

"'active' for all active PATH messages. This object may be used to install static PATH information or delete PATH information."

::= { rsvpSenderEntry 44 }

rsvpSenderTTL OBJECT-TYPE

SYNTAX INTEGER (0..255)

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The TTL value in the RSVP header that was last received."

::= { rsvpSenderEntry 45 }


```

rsvpSenderOutInterfaceTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF RsvpSenderOutInterfaceEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "List of outgoing interfaces that PATH messages
         use. The ifIndex is the ifIndex value of the
         egress interface."
    ::= { rsvpObjects 3 }

```

```

rsvpSenderOutInterfaceEntry OBJECT-TYPE
    SYNTAX      RsvpSenderOutInterfaceEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "List of outgoing interfaces that a particular
         PATH message has."
    INDEX { rsvpSessionNumber, rsvpSenderNumber, ifIndex }
    ::= { rsvpSenderOutInterfaceTable 1 }

```

```

RsvpSenderOutInterfaceEntry ::=
    SEQUENCE {
        rsvpSenderOutInterfaceStatus          RowStatus
    }

```

```

rsvpSenderOutInterfaceStatus OBJECT-TYPE
    SYNTAX      RowStatus
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "'active' for all active PATH messages."
    ::= { rsvpSenderOutInterfaceEntry 1 }

```


-- The RSVP Reservation Requests Received Table contains the
-- information displayed by receivers regarding their needs with
-- respect to sessions and senders. It is in essence a list of the
-- valid RESV messages that the RSVP Router or Host is receiving.

rsvpResvNewIndex OBJECT-TYPE

SYNTAX TestAndIncr

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"This object is used to assign values to rsvpResvNumber 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 rsvpResvEntry. 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."

::= { rsvpGenObjects 3 }

rsvpResvTable OBJECT-TYPE

SYNTAX SEQUENCE OF RsvpResvEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"Information describing the state information displayed by receivers in RESV messages."

::= { rsvpObjects 4 }

rsvpResvEntry OBJECT-TYPE

SYNTAX RsvpResvEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"Information describing the state information displayed by a single receiver's RESV message concerning a single sender."

INDEX { rsvpSessionNumber, rsvpResvNumber }

::= { rsvpResvTable 1 }


```

RsvpResvEntry ::=
  SEQUENCE {
    rsvpResvNumber          SessionNumber,
    rsvpResvType            SessionType,
    rsvpResvDestAddr       OCTET STRING,
    rsvpResvSenderAddr     OCTET STRING,
    rsvpResvDestAddrLength INTEGER,
    rsvpResvSenderAddrLength INTEGER,
    rsvpResvProtocol       Protocol,
    rsvpResvDestPort       Port,
    rsvpResvPort           Port,
    rsvpResvHopAddr        OCTET STRING,
    rsvpResvHopLih         Integer32,
    rsvpResvInterface      InterfaceIndex,
    rsvpResvService        QosService,
    rsvpResvTSpecRate      BitRate,
    rsvpResvTSpecPeakRate  BitRate,
    rsvpResvTSpecBurst     BurstSize,
    rsvpResvTSpecMinTU     MessageSize,
    rsvpResvTSpecMaxTU     MessageSize,
    rsvpResvRSpecRate      BitRate,
    rsvpResvRSpecSlack     Integer32,
    rsvpResvInterval       RefreshInterval,
    rsvpResvScope          OCTET STRING,
    rsvpResvShared         TruthValue,
    rsvpResvExplicit       TruthValue,
    rsvpResvRSVPHop        TruthValue,
    rsvpResvLastChange     TimeStamp,
    rsvpResvPolicy          OCTET STRING,
    rsvpResvStatus         RowStatus,
    rsvpResvTTL            INTEGER,
    rsvpResvFlowId         INTEGER
  }

```

```

rsvpResvNumber OBJECT-TYPE
  SYNTAX      SessionNumber
  MAX-ACCESS  not-accessible
  STATUS      current
  DESCRIPTION
    "The number of this reservation request.  This
     is for SNMP Indexing purposes only and has no
     relation to any protocol value."
  ::= { rsvpResvEntry 1 }

```


rsvpResvType OBJECT-TYPE

SYNTAX SessionType

MAX-ACCESS read-create

STATUS current

DESCRIPTION

"The type of session (IP4, IP6, IP6 with flow information, etc)."

::= { rsvpResvEntry 2 }

rsvpResvDestAddr 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 'active'."

::= { rsvpResvEntry 3 }

rsvpResvSenderAddr 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 indicates 'all senders'. This object may not be changed when the value of the RowStatus object is 'active'."

::= { rsvpResvEntry 4 }

rsvpResvDestAddrLength 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'."

::= { rsvpResvEntry 5 }

rsvpResvSenderAddrLength 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'."

::= { rsvpResvEntry 6 }

rsvpResvProtocol OBJECT-TYPE

SYNTAX Protocol

MAX-ACCESS read-create

STATUS current

DESCRIPTION

"The IP Protocol used by this session. This object may not be changed when the value of the RowStatus object is 'active'."

::= { rsvpResvEntry 7 }

rsvpResvDestPort OBJECT-TYPE

SYNTAX Port
MAX-ACCESS read-create
STATUS current

DESCRIPTION

"The UDP or TCP port number used as a destination port for all senders in this session. If the IP protocol in use, specified by rsvpResvProtocol, 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 object may not be changed when the value of the RowStatus object is 'active'."

::= { rsvpResvEntry 8 }

rsvpResvPort 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 rsvpResvProtocol 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'."

::= { rsvpResvEntry 9 }

rsvpResvHopAddr OBJECT-TYPE

SYNTAX OCTET STRING (SIZE(4..16))
MAX-ACCESS read-create
STATUS current

DESCRIPTION

"The address used by the next RSVP hop (which may be the ultimate receiver)."

::= { rsvpResvEntry 10 }

rsvpResvHopLih OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS read-create
STATUS current
DESCRIPTION
"The Logical Interface Handle received from the
previous RSVP hop (which may be the ultimate
receiver)."
 ::= { rsvpResvEntry 11 }

rsvpResvInterface OBJECT-TYPE
SYNTAX InterfaceIndex
MAX-ACCESS read-create
STATUS current
DESCRIPTION
"The ifIndex value of the interface on which
this RESV message was most recently received."
 ::= { rsvpResvEntry 12 }

rsvpResvService OBJECT-TYPE
SYNTAX QoSService
MAX-ACCESS read-create
STATUS current
DESCRIPTION
"The QoS Service classification requested by
the receiver."
 ::= { rsvpResvEntry 13 }

rsvpResvTSpecRate OBJECT-TYPE

SYNTAX BitRate
UNITS "bits per second"
MAX-ACCESS read-create
STATUS current

DESCRIPTION

"The Average Bit Rate of the sender's data stream. Within a transmission burst, the arrival rate may be as fast as rsvpResvTSpecPeakRate (if supported by the service model); however, averaged across two or more burst intervals, the rate should not exceed rsvpResvTSpecRate.

Note that this is a prediction, often based on the general capability of a type of codec or particular encoding; the measured average rate may be significantly lower."

::= { rsvpResvEntry 14 }

rsvpResvTSpecPeakRate OBJECT-TYPE

SYNTAX BitRate
UNITS "bits per second"
MAX-ACCESS read-create
STATUS current

DESCRIPTION

"The Peak Bit Rate of the sender's data stream. Traffic arrival is not expected to exceed this rate at any time, apart from the effects of jitter in the network. If not specified in the TSpec, this returns zero or noSuchValue."

::= { rsvpResvEntry 15 }

rsvpResvTSpecBurst 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."

::= { rsvpResvEntry 16 }

rsvpResvTSpecMinTU 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."

::= { rsvpResvEntry 17 }

rsvpResvTSpecMaxTU OBJECT-TYPE

SYNTAX MessageSize

MAX-ACCESS read-create

STATUS current

DESCRIPTION

"The maximum message size for this flow. The admission algorithm will reject TSpecs whose Maximum Transmission Unit, plus the interface headers, exceed the interface MTU."

::= { rsvpResvEntry 18 }

rsvpResvRSpecRate OBJECT-TYPE

SYNTAX BitRate
UNITS "bits per second"
MAX-ACCESS read-create
STATUS current

DESCRIPTION

"If the requested service is Guaranteed, as specified by rsvpResvService, this is the clearing rate that is being requested. Otherwise, it is zero, or the agent may return noSuchValue."

::= { rsvpResvEntry 19 }

rsvpResvRSpecSlack OBJECT-TYPE

SYNTAX Integer32
UNITS "microseconds"
MAX-ACCESS read-create
STATUS current

DESCRIPTION

"If the requested service is Guaranteed, as specified by rsvpResvService, this is the delay slack. Otherwise, it is zero, or the agent may return noSuchValue."

::= { rsvpResvEntry 20 }

rsvpResvInterval OBJECT-TYPE

SYNTAX RefreshInterval
MAX-ACCESS read-create
STATUS current

DESCRIPTION

"The interval between refresh messages as advertised by the Next Hop."

::= { rsvpResvEntry 21 }

rsvpResvScope OBJECT-TYPE

SYNTAX OCTET STRING (SIZE(0..65536))
MAX-ACCESS read-create
STATUS current
DESCRIPTION

"The contents of the scope object, displayed as an uninterpreted string of octets, including the object header. In the absence of such an object, this should be of zero length.

If the length is non-zero, this contains a series of IP4 or IP6 addresses."

::= { rsvpResvEntry 22 }

rsvpResvShared OBJECT-TYPE

SYNTAX TruthValue
MAX-ACCESS read-create
STATUS current
DESCRIPTION

"If TRUE, a reservation shared among senders is requested. If FALSE, a reservation specific to this sender is requested."

::= { rsvpResvEntry 23 }

rsvpResvExplicit OBJECT-TYPE

SYNTAX TruthValue
MAX-ACCESS read-create
STATUS current
DESCRIPTION

"If TRUE, individual senders are listed using Filter Specifications. If FALSE, all senders are implicitly selected. The Scope Object will contain a list of senders that need to receive this reservation request for the purpose of routing the RESV message."

::= { rsvpResvEntry 24 }

rsvpResvRSVPHop OBJECT-TYPE
SYNTAX TruthValue
MAX-ACCESS read-create
STATUS current
DESCRIPTION
"If TRUE, the node believes that the previous IP hop is an RSVP hop. If FALSE, the node believes that the previous IP hop may not be an RSVP hop."
 ::= { rsvpResvEntry 25 }

rsvpResvLastChange OBJECT-TYPE
SYNTAX TimeStamp
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The time of the last change in this reservation request; This is either the first time it was received or the time of the most recent change in parameters."
 ::= { rsvpResvEntry 26 }

rsvpResvPolicy OBJECT-TYPE
SYNTAX OCTET STRING (SIZE(0..65536))
MAX-ACCESS read-create
STATUS current
DESCRIPTION
"The contents of the policy object, displayed as an uninterpreted string of octets, including the object header. In the absence of such an object, this should be of zero length."
 ::= { rsvpResvEntry 27 }


```
rsvpResvStatus OBJECT-TYPE
    SYNTAX      RowStatus
    MAX-ACCESS  read-create
    STATUS      current
    DESCRIPTION
        "'active' for all active RESV messages.  This
        object may be used to install static RESV in-
        formation or delete RESV information."
 ::= { rsvpResvEntry 28 }
```

```
rsvpResvTTL OBJECT-TYPE
    SYNTAX      INTEGER (0..255)
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The TTL value in the RSVP header that was last
        received."
 ::= { rsvpResvEntry 29 }
```

```
rsvpResvFlowId OBJECT-TYPE
    SYNTAX      INTEGER (0..16777215)
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The flow ID that this receiver is using, if
        this is an IPv6 session."
 ::= { rsvpResvEntry 30 }
```



```
--      The RSVP Reservation Requests Forwarded Table contains the
--      information displayed by receivers regarding their needs with
--      respect to sessions and senders. It is in essence a list of the
--      valid RESV messages that the RSVP Router or Host is sending
--      to its upstream neighbors.
```

rsvpResvFwdNewIndex OBJECT-TYPE

SYNTAX TestAndIncr

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"This object is used to assign values to rsvpResvFwdNumber 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 rsvpResvFwdEntry. 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."

::= { rsvpGenObjects 4 }

rsvpResvFwdTable OBJECT-TYPE

SYNTAX SEQUENCE OF RsvpResvFwdEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"Information describing the state information displayed upstream in RESV messages."

::= { rsvpObjects 5 }


```
rsvpResvFwdEntry OBJECT-TYPE
    SYNTAX      RsvpResvFwdEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "Information describing the state information
         displayed upstream in an RESV message concern-
         ing a single sender."
    INDEX { rsvpSessionNumber, rsvpResvFwdNumber }
    ::= { rsvpResvFwdTable 1 }
```

```

RsvpResvFwdEntry ::=
  SEQUENCE {
    rsvpResvFwdNumber          SessionNumber,
    rsvpResvFwdType            SessionType,
    rsvpResvFwdDestAddr        OCTET STRING,
    rsvpResvFwdSenderAddr      OCTET STRING,
    rsvpResvFwdDestAddrLength  INTEGER,
    rsvpResvFwdSenderAddrLength INTEGER,
    rsvpResvFwdProtocol        Protocol,
    rsvpResvFwdDestPort        Port,
    rsvpResvFwdPort            Port,
    rsvpResvFwdHopAddr         OCTET STRING,
    rsvpResvFwdHopLih          Integer32,
    rsvpResvFwdInterface       InterfaceIndex,
    rsvpResvFwdService         QoSService,
    rsvpResvFwdTSpecRate       BitRate,
    rsvpResvFwdTSpecPeakRate   BitRate,
    rsvpResvFwdTSpecBurst      BurstSize,
    rsvpResvFwdTSpecMinTU      MessageSize,
    rsvpResvFwdTSpecMaxTU      MessageSize,
    rsvpResvFwdRSpecRate       BitRate,
    rsvpResvFwdRSpecSlack      Integer32,
    rsvpResvFwdInterval        RefreshInterval,
    rsvpResvFwdScope           OCTET STRING,
    rsvpResvFwdShared          TruthValue,
    rsvpResvFwdExplicit        TruthValue,
    rsvpResvFwdRSVPHop         TruthValue,
    rsvpResvFwdLastChange      TimeStamp,
    rsvpResvFwdPolicy           OCTET STRING,
    rsvpResvFwdStatus          RowStatus,
    rsvpResvFwdTTL             INTEGER,
    rsvpResvFwdFlowId          INTEGER
  }

```

```

rsvpResvFwdNumber OBJECT-TYPE
  SYNTAX      SessionNumber
  MAX-ACCESS  not-accessible
  STATUS      current
  DESCRIPTION
    "The number of this reservation request.  This
     is for SNMP Indexing purposes only and has no
     relation to any protocol value."
  ::= { rsvpResvFwdEntry 1 }

```


rsvpResvFwdType OBJECT-TYPE
SYNTAX SessionType
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The type of session (IP4, IP6, IP6 with flow
information, etc)."
 ::= { rsvpResvFwdEntry 2 }

rsvpResvFwdDestAddr OBJECT-TYPE
SYNTAX OCTET STRING (SIZE(4..16))
MAX-ACCESS read-only
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'. "
 ::= { rsvpResvFwdEntry 3 }

rsvpResvFwdSenderAddr OBJECT-TYPE
SYNTAX OCTET STRING (SIZE(4..16))
MAX-ACCESS read-only
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'. "
 ::= { rsvpResvFwdEntry 4 }

rsvpResvFwdDestAddrLength OBJECT-TYPE

SYNTAX INTEGER(0..128)

MAX-ACCESS read-only

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'."

::= { rsvpResvFwdEntry 5 }

rsvpResvFwdSenderAddrLength OBJECT-TYPE

SYNTAX INTEGER(0..128)

MAX-ACCESS read-only

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'."

::= { rsvpResvFwdEntry 6 }

rsvpResvFwdProtocol OBJECT-TYPE

SYNTAX Protocol

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The IP Protocol used by a session. for secure sessions, this indicates IP Security. This object may not be changed when the value of the RowStatus object is 'active'."

::= { rsvpResvFwdEntry 7 }

rsvpResvFwdDestPort OBJECT-TYPE

SYNTAX Port
MAX-ACCESS read-only
STATUS current

DESCRIPTION

"The UDP or TCP port number used as a destination port for all senders in this session. If the IP protocol in use, specified by rsvpResvFwdProtocol, 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 object may not be changed when the value of the RowStatus object is 'active'."

::= { rsvpResvFwdEntry 8 }

rsvpResvFwdPort OBJECT-TYPE

SYNTAX Port
MAX-ACCESS read-only
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 rsvpResvFwdProtocol 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'."

::= { rsvpResvFwdEntry 9 }

rsvpResvFwdHopAddr OBJECT-TYPE

SYNTAX OCTET STRING (SIZE(4..16))
MAX-ACCESS read-only
STATUS current

DESCRIPTION

"The address of the (previous) RSVP that will receive this message."

::= { rsvpResvFwdEntry 10 }

rsvpResvFwdHopLih OBJECT-TYPE
SYNTAX Integer32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The Logical Interface Handle sent to the (pre-
vious) RSVP that will receive this message."
 ::= { rsvpResvFwdEntry 11 }

rsvpResvFwdInterface OBJECT-TYPE
SYNTAX InterfaceIndex
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The ifIndex value of the interface on which
this RESV message was most recently sent."
 ::= { rsvpResvFwdEntry 12 }

rsvpResvFwdService OBJECT-TYPE
SYNTAX QoSService
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The QoS Service classification requested."
 ::= { rsvpResvFwdEntry 13 }

rsvpResvFwdTSpecRate OBJECT-TYPE

SYNTAX BitRate
UNITS "bits per second"
MAX-ACCESS read-only
STATUS current

DESCRIPTION

"The Average Bit Rate of the sender's data stream. Within a transmission burst, the arrival rate may be as fast as rsvpResvFwdTSpecPeakRate (if supported by the service model); however, averaged across two or more burst intervals, the rate should not exceed rsvpResvFwdTSpecRate.

Note that this is a prediction, often based on the general capability of a type of codec or particular encoding; the measured average rate may be significantly lower."

::= { rsvpResvFwdEntry 14 }

rsvpResvFwdTSpecPeakRate OBJECT-TYPE

SYNTAX BitRate
UNITS "bits per second"
MAX-ACCESS read-only
STATUS current

DESCRIPTION

"The Peak Bit Rate of the sender's data stream. Traffic arrival is not expected to exceed this rate at any time, apart from the effects of jitter in the network. If not specified in the TSpec, this returns zero or noSuchValue."

::= { rsvpResvFwdEntry 15 }

rsvpResvFwdTSpecBurst OBJECT-TYPE

SYNTAX BurstSize

UNITS "bytes"

MAX-ACCESS read-only

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."

::= { rsvpResvFwdEntry 16 }

rsvpResvFwdTSpecMinTU OBJECT-TYPE

SYNTAX MessageSize

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The minimum message size for this flow. The policing algorithm will treat smaller messages as though they are this size."

::= { rsvpResvFwdEntry 17 }

rsvpResvFwdTSpecMaxTU OBJECT-TYPE

SYNTAX MessageSize

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The maximum message size for this flow. The admission algorithm will reject TSpecs whose Maximum Transmission Unit, plus the interface headers, exceed the interface MTU."

::= { rsvpResvFwdEntry 18 }

rsvpResvFwdRSpecRate OBJECT-TYPE

SYNTAX BitRate
UNITS "bytes per second"
MAX-ACCESS read-only
STATUS current

DESCRIPTION

"If the requested service is Guaranteed, as specified by rsvpResvService, this is the clearing rate that is being requested. Otherwise, it is zero, or the agent may return noSuchValue."

::= { rsvpResvFwdEntry 19 }

rsvpResvFwdRSpecSlack OBJECT-TYPE

SYNTAX Integer32
UNITS "microseconds"
MAX-ACCESS read-only
STATUS current

DESCRIPTION

"If the requested service is Guaranteed, as specified by rsvpResvService, this is the delay slack. Otherwise, it is zero, or the agent may return noSuchValue."

::= { rsvpResvFwdEntry 20 }

rsvpResvFwdInterval OBJECT-TYPE

SYNTAX RefreshInterval
MAX-ACCESS read-only
STATUS current

DESCRIPTION

"The interval between refresh messages advertised to the Previous Hop."

::= { rsvpResvFwdEntry 21 }

rsvpResvFwdScope OBJECT-TYPE

SYNTAX OCTET STRING (SIZE(0..65536))

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The contents of the scope object, displayed as an uninterpreted string of octets, including the object header. In the absence of such an object, this should be of zero length."

::= { rsvpResvFwdEntry 22 }

rsvpResvFwdShared OBJECT-TYPE

SYNTAX TruthValue

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"If TRUE, a reservation shared among senders is requested. If FALSE, a reservation specific to this sender is requested."

::= { rsvpResvFwdEntry 23 }

rsvpResvFwdExplicit OBJECT-TYPE

SYNTAX TruthValue

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"If TRUE, individual senders are listed using Filter Specifications. If FALSE, all senders are implicitly selected. The Scope Object will contain a list of senders that need to receive this reservation request for the purpose of routing the RESV message."

::= { rsvpResvFwdEntry 24 }


```
rsvpResvFwdRSVPHop OBJECT-TYPE
    SYNTAX      TruthValue
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "If TRUE, the node believes that the next IP
        hop is an RSVP hop. If FALSE, the node be-
        lieves that the next IP hop may not be an RSVP
        hop."
    ::= { rsvpResvFwdEntry 25 }
```

```
rsvpResvFwdLastChange OBJECT-TYPE
    SYNTAX      TimeStamp
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The time of the last change in this request;
        This is either the first time it was sent or
        the time of the most recent change in parame-
        ters."
    ::= { rsvpResvFwdEntry 26 }
```

```
rsvpResvFwdPolicy OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE(0..65536))
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The contents of the policy object, displayed
        as an uninterpreted string of octets, including
        the object header. In the absence of such an
        object, this should be of zero length."
    ::= { rsvpResvFwdEntry 27 }
```

```
rsvpResvFwdStatus OBJECT-TYPE
    SYNTAX      RowStatus
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "'active' for all active RESV messages. This
        object may be used to delete RESV information."
    ::= { rsvpResvFwdEntry 28 }
```



```
rsvpResvFwdTTL OBJECT-TYPE
    SYNTAX      INTEGER (0..255)
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The TTL value in the RSVP header that was last
         received."
    ::= { rsvpResvFwdEntry 29 }
```

```
rsvpResvFwdFlowId OBJECT-TYPE
    SYNTAX      INTEGER (0..16777215)
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The flow ID that this receiver is using, if
         this is an IPv6 session."
    ::= { rsvpResvFwdEntry 30 }
```

```
-- The RSVP Interface Attributes Database contains the
-- RSVP-specific information for an interface. Information
-- that is shared with other reservation procedures such
-- as ST-II is in the Integrated Interface Attributes
-- Database.
```

rsvpIfTable OBJECT-TYPE

```
SYNTAX      SEQUENCE OF RsvpIfEntry
MAX-ACCESS  not-accessible
STATUS      current
DESCRIPTION
    "The RSVP-specific attributes of the system's
    interfaces."
 ::= { rsvpObjects 6 }
```

rsvpIfEntry OBJECT-TYPE

```
SYNTAX      RsvpIfEntry
MAX-ACCESS  not-accessible
STATUS      current
DESCRIPTION
    "The RSVP-specific attributes of the a given
    interface."
INDEX { ifIndex }
 ::= { rsvpIfTable 1 }
```

RsvpIfEntry ::=

```
SEQUENCE {
    rsvpIfUdpNbrs          Gauge32,
    rsvpIfIpNbrs          Gauge32,
    rsvpIfNbrs            Gauge32,
    rsvpIfEnabled         TruthValue,
    rsvpIfUdpRequired     TruthValue,
    rsvpIfRefreshBlockadeMultiple  INTEGER,
    rsvpIfRefreshMultiple  INTEGER,
    rsvpIfTTL             INTEGER,
    rsvpIfRefreshInterval TimeInterval,
    rsvpIfRouteDelay     TimeInterval,
    rsvpIfStatus         RowStatus
}
```


rsvpIfUdpNbrs OBJECT-TYPE

SYNTAX Gauge32
MAX-ACCESS read-only
STATUS current
DESCRIPTION

"The number of neighbors perceived to be using only the RSVP UDP Encapsulation."

::= { rsvpIfEntry 1 }

rsvpIfIpNbrs OBJECT-TYPE

SYNTAX Gauge32
MAX-ACCESS read-only
STATUS current
DESCRIPTION

"The number of neighbors perceived to be using only the RSVP IP Encapsulation."

::= { rsvpIfEntry 2 }

rsvpIfNbrs OBJECT-TYPE

SYNTAX Gauge32
MAX-ACCESS read-only
STATUS current
DESCRIPTION

"The number of neighbors currently perceived; this will exceed rsvpIfIpNbrs + rsvpIfUdpNbrs by the number of neighbors using both encapsulations."

::= { rsvpIfEntry 3 }

rsvpIfRefreshBlockadeMultiple OBJECT-TYPE

SYNTAX INTEGER (1..65536)
MAX-ACCESS read-create
STATUS current
DESCRIPTION

"The value of the RSVP value 'Kb', which is the minimum number of refresh intervals that blockade state will last once entered."

DEFVAL { 4 }

::= { rsvpIfEntry 4 }

rsvpIfRefreshMultiple OBJECT-TYPE

SYNTAX INTEGER (1..65536)

MAX-ACCESS read-create

STATUS current

DESCRIPTION

"The value of the RSVP value 'K', which is the number of refresh intervals which must elapse (minimum) before a PATH or RESV message which is not being refreshed will be aged out."

DEFVAL { 3 }

::= { rsvpIfEntry 5 }

rsvpIfTTL OBJECT-TYPE

SYNTAX INTEGER (0..255)

MAX-ACCESS read-create

STATUS current

DESCRIPTION

"The value of SEND_TTL used on this interface for messages this node originates. If set to zero, the node determines the TTL via other means."

DEFVAL { 0 } -- which is to say, no override

::= { rsvpIfEntry 6 }

rsvpIfRefreshInterval OBJECT-TYPE

SYNTAX TimeInterval

UNITS "milliseconds"

MAX-ACCESS read-create

STATUS current

DESCRIPTION

"The value of the RSVP value 'R', which is the minimum period between refresh transmissions of a given PATH or RESV message on an interface."

DEFVAL { 3000 } -- 30 seconds

::= { rsvpIfEntry 7 }


```
rsvpIfRouteDelay OBJECT-TYPE
    SYNTAX      TimeInterval
    UNITS        "hundredths of a second"
    MAX-ACCESS   read-create
    STATUS       current
    DESCRIPTION
        "The approximate period from the time a route
         is changed to the time a resulting message ap-
         pears on the interface."
    DEFVAL       { 200 } -- 2 seconds
    ::= { rsvpIfEntry 8 }
```

```
rsvpIfEnabled OBJECT-TYPE
    SYNTAX      TruthValue
    MAX-ACCESS   read-create
    STATUS       current
    DESCRIPTION
        "If TRUE, RSVP is enabled on this Interface.
         If FALSE, RSVP is not enabled on this inter-
         face."
    ::= { rsvpIfEntry 9 }
```

```
rsvpIfUdpRequired OBJECT-TYPE
    SYNTAX      TruthValue
    MAX-ACCESS   read-create
    STATUS       current
    DESCRIPTION
        "If TRUE, manual configuration forces the use
         of UDP encapsulation on the interface. If
         FALSE, UDP encapsulation is only used if rsvpI-
         fUdpNbrs is not zero."
    ::= { rsvpIfEntry 10 }
```



```
rsvpIfStatus OBJECT-TYPE
    SYNTAX      RowStatus
    MAX-ACCESS  read-create
    STATUS      current
    DESCRIPTION
        "'active' on interfaces that are configured for
        RSVP."
    ::= { rsvpIfEntry 11 }
```

-- The RSVP Neighbor Database lists the neighbors the RSVP
-- process currently is receiving messages from.

```
rsvpNbrTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF RsvpNbrEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "Information describing the Neighbors of an
        RSVP system."
    ::= { rsvpObjects 7 }
```

```
rsvpNbrEntry OBJECT-TYPE
    SYNTAX      RsvpNbrEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "Information describing a single RSVP Neighbor."
    INDEX { ifIndex, rsvpNbrAddress }
    ::= { rsvpNbrTable 1 }
```

```
RsvpNbrEntry ::=
    SEQUENCE {
    rsvpNbrAddress      OCTET STRING,
    rsvpNbrProtocol    RsvpEncapsulation,
    rsvpNbrStatus      RowStatus
    }
```

```
rsvpNbrAddress OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE(4..16))
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The IP4 or IP6 Address used by this neighbor.
        This object may not be changed when the value
        of the RowStatus object is 'active'."
    ::= { rsvpNbrEntry 1 }
```



```
rsvpNbrProtocol OBJECT-TYPE
    SYNTAX      RsvpEncapsulation
    MAX-ACCESS  read-create
    STATUS      current
    DESCRIPTION
        "The encapsulation being used by this neighbor."
 ::= { rsvpNbrEntry 2 }
```

```
rsvpNbrStatus OBJECT-TYPE
    SYNTAX      RowStatus
    MAX-ACCESS  read-create
    STATUS      current
    DESCRIPTION
        "'active' for all neighbors. This object may be used to configure neighbors. In the presence of configured neighbors, the implementation may (but is not required to) limit the set of valid neighbors to those configured."
 ::= { rsvpNbrEntry 3 }
```

--
--
--

Notifications used to signal events

rsvpNotifications OBJECT IDENTIFIER ::= { rsvpNotificationsPrefix 0 }

newFlow NOTIFICATION-TYPE

OBJECTS {

intSrvFlowStatus, rsvpSessionDestAddr,
rsvpResvFwdStatus, rsvpResvStatus, rsvpSenderStatus

}

STATUS current

DESCRIPTION

"The newFlow trap indicates that the originating system has installed a new flow in its classifier, or (when reservation authorization is in view) is prepared to install such a flow in the classifier and is requesting authorization. The objects included with the Notification may be used to read further information using the Integrated Services and RSVP MIBs. Authorization or non-authorization may be enacted by a write to the variable intSrvFlowStatus."

::= { rsvpNotifications 1 }

lostFlow NOTIFICATION-TYPE

OBJECTS {

intSrvFlowStatus, rsvpSessionDestAddr,
rsvpResvFwdStatus, rsvpResvStatus, rsvpSenderStatus

}

STATUS current

DESCRIPTION

"The lostFlow trap indicates that the originating system has removed a flow from its classifier."

::= { rsvpNotifications 2 }

-- conformance information

rsvpGroups OBJECT IDENTIFIER ::= { rsvpConformance 1 }
rsvpCompliances OBJECT IDENTIFIER ::= { rsvpConformance 2 }

-- compliance statements

```
rsvpCompliance MODULE-COMPLIANCE
  STATUS current
  DESCRIPTION
    "The compliance statement. Note that the im-
    plementation of this module requires implemen-
    tation of the Integrated Services MIB as well."
  MODULE -- this module
  MANDATORY-GROUPS {
    rsvpSessionGroup, rsvpSenderGroup, rsvpResvGroup,
    rsvpIfGroup, rsvpNbrGroup,
    rsvpGenObjectsGroup, rsvpSenderOutInterfaceGroup
  }

  GROUP rsvpResvFwdGroup
  DESCRIPTION
    "The Reservation Requests table is appropriate
    in implementations that store upstream reserva-
    tion messages, but not appropriate in implemen-
    tations which calculate them on each transmis-
    sion."

  GROUP rsvpNotificationGroup
  DESCRIPTION
    "The notifications in this module may be used to
    advise a network management station of changes in
    flow status, and are required when this use is in
    view."

  OBJECT      rsvpSessionRequests
  MIN-ACCESS  not-accessible
  DESCRIPTION
    "This object is optional."

  OBJECT      rsvpSenderType
  MIN-ACCESS  read-only
  DESCRIPTION
    "read-create access is not required. This may be
    read-only."

  OBJECT      rsvpSenderDestAddr
  MIN-ACCESS  read-only
  DESCRIPTION
    "read-create access is not required. This may be
    read-only."
```


OBJECT rsvpSenderAddr
MIN-ACCESS read-only
DESCRIPTION
"read-create access is not required. This may be
read-only."

OBJECT rsvpSenderDestAddrLength
MIN-ACCESS read-only
DESCRIPTION
"read-create access is not required. This may be
read-only."

OBJECT rsvpSenderAddrLength
MIN-ACCESS read-only
DESCRIPTION
"read-create access is not required. This may be
read-only."

OBJECT rsvpSenderProtocol
MIN-ACCESS read-only
DESCRIPTION
"read-create access is not required. This may be
read-only."

OBJECT rsvpSenderDestPort
MIN-ACCESS read-only
DESCRIPTION
"read-create access is not required. This may be
read-only."

OBJECT rsvpSenderPort
MIN-ACCESS read-only
DESCRIPTION
"read-create access is not required. This may be
read-only."

OBJECT rsvpSenderHopAddr
MIN-ACCESS read-only
DESCRIPTION
"read-create access is not required. This may be
read-only."

OBJECT rsvpSenderHopLih
MIN-ACCESS read-only
DESCRIPTION

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

OBJECT rsvpSenderInterface
MIN-ACCESS read-only
DESCRIPTION
"read-create access is not required. This may be read-only."

OBJECT rsvpSenderTSpecRate
MIN-ACCESS read-only
DESCRIPTION
"read-create access is not required. This may be read-only."

OBJECT rsvpSenderTSpecPeakRate
MIN-ACCESS read-only
DESCRIPTION
"read-create access is not required. This may be read-only."

OBJECT rsvpSenderTSpecBurst
MIN-ACCESS read-only
DESCRIPTION
"read-create access is not required. This may be read-only."

OBJECT rsvpSenderTSpecMinTU
MIN-ACCESS read-only
DESCRIPTION
"read-create access is not required. This may be read-only."

OBJECT rsvpSenderTSpecMaxTU
MIN-ACCESS read-only
DESCRIPTION
"read-create access is not required. This may be read-only."

OBJECT rsvpSenderInterval
MIN-ACCESS read-only
DESCRIPTION
"read-create access is not required. This may be read-only."

OBJECT rsvpSenderRSVPHop
MIN-ACCESS read-only
DESCRIPTION
"read-create access is not required. This may be read-only."

OBJECT rsvpSenderPolicy
MIN-ACCESS read-only
DESCRIPTION
"read-create access is not required. This may be read-only."

OBJECT rsvpSenderAdspecBreak
MIN-ACCESS read-only
DESCRIPTION
"read-create access is not required. This may be read-only."

OBJECT rsvpSenderAdspecHopCount
MIN-ACCESS read-only
DESCRIPTION
"read-create access is not required. This may be read-only."

OBJECT rsvpSenderAdspecPathBw
MIN-ACCESS read-only
DESCRIPTION
"read-create access is not required. This may be read-only."

OBJECT rsvpSenderAdspecMinLatency
MIN-ACCESS read-only
DESCRIPTION
"read-create access is not required. This may be read-only."

OBJECT rsvpSenderAdspecMtu
MIN-ACCESS read-only
DESCRIPTION
"read-create access is not required. This may be read-only."

OBJECT rsvpSenderAdspecGuaranteedSvc
MIN-ACCESS not-accessible
DESCRIPTION

"This may be not-accessible if the system does not support Guaranteed Service."

OBJECT rsvpSenderAdspecGuaranteedBreak
MIN-ACCESS not-accessible
DESCRIPTION
"This may be not-accessible if the system does not support Guaranteed Service."

OBJECT rsvpSenderAdspecGuaranteedCtot
MIN-ACCESS not-accessible
DESCRIPTION
"This may be not-accessible if the system does not support Guaranteed Service."

OBJECT rsvpSenderAdspecGuaranteedDtot
MIN-ACCESS not-accessible
DESCRIPTION
"This may be not-accessible if the system does not support Guaranteed Service."

OBJECT rsvpSenderAdspecGuaranteedCsum
MIN-ACCESS not-accessible
DESCRIPTION
"This may be not-accessible if the system does not support Guaranteed Service."

OBJECT rsvpSenderAdspecGuaranteedDsum
MIN-ACCESS read-only
DESCRIPTION
"This may be not-accessible if the system does not support Guaranteed Service."

OBJECT rsvpSenderAdspecGuaranteedHopCount
MIN-ACCESS not-accessible
DESCRIPTION
"This may be not-accessible if the system does not support Guaranteed Service."

OBJECT rsvpSenderAdspecGuaranteedPathBw
MIN-ACCESS not-accessible
DESCRIPTION
"This may be not-accessible if the system does not support Guaranteed Service."

OBJECT rsvpSenderAdspecGuaranteedMinLatency
MIN-ACCESS not-accessible
DESCRIPTION
"This may be not-accessible if the system does not
support Guaranteed Service."

OBJECT rsvpSenderAdspecGuaranteedMtu
MIN-ACCESS not-accessible
DESCRIPTION
"This may be not-accessible if the system does not
support Guaranteed Service."

OBJECT rsvpSenderAdspecCtrlLoadSvc
MIN-ACCESS not-accessible
DESCRIPTION
"This may be not-accessible if the system does not
support Controlled Load."

OBJECT rsvpSenderAdspecCtrlLoadBreak
MIN-ACCESS not-accessible
DESCRIPTION
"This may be not-accessible if the system does not
support Controlled Load."

OBJECT rsvpSenderAdspecCtrlLoadHopCount
MIN-ACCESS not-accessible
DESCRIPTION
"This may be not-accessible if the system does not
support Controlled Load."

OBJECT rsvpSenderAdspecCtrlLoadPathBw
MIN-ACCESS not-accessible
DESCRIPTION
"This may be not-accessible if the system does not
support Controlled Load."

OBJECT rsvpSenderAdspecCtrlLoadMinLatency
MIN-ACCESS not-accessible
DESCRIPTION
"This may be not-accessible if the system does not
support Controlled Load."

OBJECT rsvpSenderAdspecCtrlLoadMtu
MIN-ACCESS not-accessible
DESCRIPTION

"This may be not-accessible if the system does not support Controlled Load."

OBJECT rsvpSenderStatus
MIN-ACCESS read-only
DESCRIPTION
"read-create access is not required. This may be read-only."

OBJECT rsvpSenderFlowId
MIN-ACCESS not-accessible
DESCRIPTION
"This object is needed only in a system that implements IPv6."

OBJECT rsvpResvType
MIN-ACCESS read-only
DESCRIPTION
"read-create access is not required. This may be read-only."

OBJECT rsvpResvDestAddr
MIN-ACCESS read-only
DESCRIPTION
"read-create access is not required. This may be read-only."

OBJECT rsvpResvSenderAddr
MIN-ACCESS read-only
DESCRIPTION
"read-create access is not required. This may be read-only."

OBJECT rsvpResvDestAddrLength
MIN-ACCESS read-only
DESCRIPTION
"read-create access is not required. This may be read-only."

OBJECT rsvpResvSenderAddrLength
MIN-ACCESS read-only
DESCRIPTION
"read-create access is not required. This may be read-only."

OBJECT rsvpResvProtocol
MIN-ACCESS read-only
DESCRIPTION
 "read-create access is not required. This may be
 read-only."

OBJECT rsvpResvDestPort
MIN-ACCESS read-only
DESCRIPTION
 "read-create access is not required. This may be
 read-only."

OBJECT rsvpResvPort
MIN-ACCESS read-only
DESCRIPTION
 "read-create access is not required. This may be
 read-only."

OBJECT rsvpResvHopAddr
MIN-ACCESS read-only
DESCRIPTION
 "read-create access is not required. This may be
 read-only."

OBJECT rsvpResvHopLih
MIN-ACCESS read-only
DESCRIPTION
 "read-create access is not required. This may be
 read-only."

OBJECT rsvpResvInterface
MIN-ACCESS read-only
DESCRIPTION
 "read-create access is not required. This may be
 read-only."

OBJECT rsvpResvService
MIN-ACCESS read-only
DESCRIPTION
 "read-create access is not required. This may be
 read-only."

OBJECT rsvpResvTSpecRate
MIN-ACCESS read-only
DESCRIPTION

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

OBJECT rsvpResvTSpecPeakRate
MIN-ACCESS read-only
DESCRIPTION
"read-create access is not required. This may be read-only."

OBJECT rsvpResvTSpecBurst
MIN-ACCESS read-only
DESCRIPTION
"read-create access is not required. This may be read-only."

OBJECT rsvpResvTSpecMinTU
MIN-ACCESS read-only
DESCRIPTION
"read-create access is not required. This may be read-only."

OBJECT rsvpResvTSpecMaxTU
MIN-ACCESS read-only
DESCRIPTION
"read-create access is not required. This may be read-only."

OBJECT rsvpResvRSpecRate
MIN-ACCESS read-only
DESCRIPTION
"read-create access is not required. This may be read-only."

OBJECT rsvpResvRSpecSlack
MIN-ACCESS read-only
DESCRIPTION
"read-create access is not required. This may be read-only."

OBJECT rsvpResvInterval
MIN-ACCESS read-only
DESCRIPTION
"read-create access is not required. This may be read-only."

OBJECT rsvpResvScope
MIN-ACCESS read-only
DESCRIPTION
 "read-create access is not required. This may be
 read-only."

OBJECT rsvpResvShared
MIN-ACCESS read-only
DESCRIPTION
 "read-create access is not required. This may be
 read-only."

OBJECT rsvpResvExplicit
MIN-ACCESS read-only
DESCRIPTION
 "read-create access is not required. This may be
 read-only."

OBJECT rsvpResvRSVPHop
MIN-ACCESS read-only
DESCRIPTION
 "read-create access is not required. This may be
 read-only."

OBJECT rsvpResvPolicy
MIN-ACCESS read-only
DESCRIPTION
 "read-create access is not required. This may be
 read-only."

OBJECT rsvpResvStatus
MIN-ACCESS read-only
DESCRIPTION
 "read-create access is not required. This may be
 read-only."

OBJECT rsvpResvFlowId
MIN-ACCESS not-accessible
DESCRIPTION
 "This object is needed only in a system that imple-
 ments IPv6."

OBJECT rsvpResvFwdStatus
MIN-ACCESS read-only
DESCRIPTION
 "read-create access is not required. This may be


```
    read-only."
OBJECT      rsvpResvFwdFlowId
MIN-ACCESS not-accessible
DESCRIPTION
    "This object is needed only in a system that imple-
    ments IPv6."

 ::= { rsvpCompliances 1 }

rsvpSessionGroup OBJECT-GROUP
  OBJECTS {
    rsvpSessionType, rsvpSessionDestAddr,
    rsvpSessionDestAddrLength, rsvpSessionProtocol,
    rsvpSessionPort, rsvpSessionSenders, rsvpSessionReceivers,
    rsvpSessionRequests
  }
  STATUS current
  DESCRIPTION
    "These objects are required for RSVP Systems."
 ::= { rsvpGroups 1 }
```

rsvpSenderGroup OBJECT-GROUP

```
OBJECTS {
    rsvpSenderType, rsvpSenderDestAddr, rsvpSenderAddr,
    rsvpSenderDestAddrLength, rsvpSenderAddrLength,
    rsvpSenderProtocol, rsvpSenderDestPort, rsvpSenderPort,
    rsvpSenderFlowId, rsvpSenderTTL,
    rsvpSenderHopAddr, rsvpSenderHopLih, rsvpSenderInterface,
    rsvpSenderTSpecRate, rsvpSenderTSpecPeakRate,
    rsvpSenderTSpecBurst, rsvpSenderTSpecMinTU,
    rsvpSenderTSpecMaxTU, rsvpSenderInterval, rsvpSenderLastChange,
    rsvpSenderStatus, rsvpSenderRSVPHop, rsvpSenderPolicy,
    rsvpSenderAdspecBreak, rsvpSenderAdspecHopCount,
    rsvpSenderAdspecPathBw, rsvpSenderAdspecMinLatency,
    rsvpSenderAdspecMtu, rsvpSenderAdspecGuaranteedSvc,
    rsvpSenderAdspecGuaranteedBreak,
    rsvpSenderAdspecGuaranteedCtot, rsvpSenderAdspecGuaranteedDtot,
    rsvpSenderAdspecGuaranteedCsum, rsvpSenderAdspecGuaranteedDsum,
    rsvpSenderAdspecGuaranteedHopCount,
    rsvpSenderAdspecGuaranteedPathBw,
    rsvpSenderAdspecGuaranteedMinLatency,
    rsvpSenderAdspecGuaranteedMtu, rsvpSenderAdspecCtrlLoadSvc,
    rsvpSenderAdspecCtrlLoadBreak,
    rsvpSenderAdspecCtrlLoadHopCount,
    rsvpSenderAdspecCtrlLoadPathBw,
    rsvpSenderAdspecCtrlLoadMinLatency,
    rsvpSenderAdspecCtrlLoadMtu, rsvpSenderNewIndex
}
STATUS current
DESCRIPTION
    "These objects are required for RSVP Systems."
 ::= { rsvpGroups 2 }
```


rsvpResvGroup OBJECT-GROUP

```
OBJECTS {
    rsvpResvType, rsvpResvDestAddr, rsvpResvSenderAddr,
    rsvpResvDestAddrLength, rsvpResvSenderAddrLength,
    rsvpResvProtocol, rsvpResvDestPort, rsvpResvPort,
    rsvpResvHopAddr, rsvpResvHopLih, rsvpResvInterface,
    rsvpResvService, rsvpResvTSpecRate, rsvpResvTSpecBurst,
    rsvpResvTSpecPeakRate, rsvpResvTSpecMinTU, rsvpResvTSpecMaxTU,
    rsvpResvRSpecRate, rsvpResvRSpecSlack, rsvpResvInterval,
    rsvpResvScope, rsvpResvShared, rsvpResvExplicit,
    rsvpResvRSVPHop, rsvpResvLastChange, rsvpResvPolicy,
    rsvpResvStatus, rsvpResvNewIndex, rsvpResvTTL, rsvpResvFlowId
}
STATUS current
DESCRIPTION
    "These objects are required for RSVP Systems."
 ::= { rsvpGroups 3 }
```

rsvpResvFwdGroup OBJECT-GROUP

```
OBJECTS {
    rsvpResvFwdType, rsvpResvFwdDestAddr, rsvpResvFwdSenderAddr,
    rsvpResvFwdDestAddrLength, rsvpResvFwdSenderAddrLength,
    rsvpResvFwdProtocol, rsvpResvFwdDestPort, rsvpResvFwdPort,
    rsvpResvFwdHopAddr, rsvpResvFwdHopLih, rsvpResvFwdInterface,
    rsvpResvFwdNewIndex, rsvpResvFwdService,
    rsvpResvFwdTSpecPeakRate, rsvpResvFwdTSpecMinTU,
    rsvpResvFwdTSpecMaxTU, rsvpResvFwdTSpecRate,
    rsvpResvFwdTSpecBurst, rsvpResvFwdRSpecRate,
    rsvpResvFwdRSpecSlack, rsvpResvFwdInterval, rsvpResvFwdScope,
    rsvpResvFwdShared, rsvpResvFwdExplicit, rsvpResvFwdRSVPHop,
    rsvpResvFwdLastChange, rsvpResvFwdPolicy, rsvpResvFwdStatus,
    rsvpResvFwdTTL, rsvpResvFwdFlowId
}
STATUS current
DESCRIPTION
    "These objects are optional, used for some RSVP
    Systems."
 ::= { rsvpGroups 4 }
```


rsvpIfGroup OBJECT-GROUP

```
OBJECTS {
    rsvpIfUdpNbrs, rsvpIfIpNbrs, rsvpIfNbrs, rsvpIfEnabled,
    rsvpIfUdpRequired, rsvpIfRefreshBlockadeMultiple,
    rsvpIfRefreshMultiple, rsvpIfRefreshInterval, rsvpIfTTL,
    rsvpIfRouteDelay, rsvpIfStatus
}
STATUS current
DESCRIPTION
    "These objects are required for RSVP Systems."
 ::= { rsvpGroups 5 }
```

rsvpNbrGroup OBJECT-GROUP

```
OBJECTS {
    rsvpNbrProtocol, rsvpNbrStatus
}
STATUS current
DESCRIPTION
    "These objects are required for RSVP Systems."
 ::= { rsvpGroups 6 }
```

rsvpGenObjectsGroup OBJECT-GROUP

```
OBJECTS {
    rsvpBadPackets
}
STATUS current
DESCRIPTION
    "This objects are required for RSVP Systems."
 ::= { rsvpGroups 7 }
```

rsvpSenderOutInterfaceGroup OBJECT-GROUP

```
OBJECTS {
    rsvpSenderOutInterfaceStatus
}
STATUS current
DESCRIPTION
    "These objects are required for RSVP Systems."
 ::= { rsvpGroups 8 }
```



```
rsvpNotificationGroup NOTIFICATION-GROUP
  NOTIFICATIONS { newFlow, lostFlow }
  STATUS current
  DESCRIPTION
    "This notification is required for Systems sup-
      porting the RSVP Policy Module using an SNMP
      interface to the Policy Manager."
  ::= { rsvpGroups 9 }
```

END

6. Security Issues

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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8. Acknowledgements

This document was produced by the RSVP Working Group.

9. References

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