

Project	IEEE 802.16 Broadband Wireless Access Working Group < http://ieee802.org/16 >
Title	Using the lists of IP / MAC addresses in the Packet Classifier Rule Tables
Date Submitted	2005-04-21
Source(s)	Joey Chou [mailto:joey.chou@intel.com] Intel Corporation 5000 W. Chandler Blvd. Chandler, AZ 85226
Re:	
Abstract	This contribution proposed the tables of supporting the lists of IP / MAC address and Port be added to the Packet Classifier Rules in IEEE P802.16f/D3.
Purpose	Adoption
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1. Introduction

3

Packet classification rules in the IEEE 802.16/2004 define that the following parameters shall be specified in the list format.

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However, in IEEE P802.16f/D3, the IP / MAC address / masks and ports are defined as scalar objects that are shown in the following:

- wmanIfBsClassifierRuleTable
 - wmanIfBsClassifierIpSrcAddr
 - wmanIfBsClassifierIpSrcMask
 - wmanIfBsClassifierIpDestAddr
 - wmanIfBsClassifierIpDestMask
 - wmanIfBsClassifierSrcPortStart
 - wmanIfBsClassifierSrcPortEnd
 - wmanIfBsClassifierDestPortStart
 - wmanIfBsClassifierDestPortEnd
 - wmanIfBsClassifierDestMacAddr
 - wmanIfBsClassifierDestMacMask
 - wmanIfBsClassifierSrcMacAddr
 - wmanIfBsClassifierSrcMacMask
- wmanIfCmnClassifierRuleTable
 - wmanIfCmnClassifierIpSrcAddr
 - wmanIfCmnClassifierIpSrcMask
 - wmanIfCmnClassifierIpDestAddr
 - wmanIfCmnClassifierIpDestMask
 - wmanIfCmnClassifierSrcPortStart
 - wmanIfCmnClassifierSrcPortEnd
 - wmanIfCmnClassifierDestPortStart

- 1 ▪ wmanIfCmnClassifierDestPortEnd
- 2 ▪ wmanIfCmnClassifierDestMacAddr
- 3 ▪ wmanIfCmnClassifierDestMacMask
- 4 ▪ wmanIfCmnClassifierSrcMacAddr
- 5 ▪ wmanIfCmnClassifierSrcMacMask

6
7 wmanIfBsClassifierRuleTable and wmanIfCmnClassifierRuleTable in current 802.16f
8 define these rules as the scalar objects. Although there is a workaround, as shown in Fig
9 2, where a list of destination MAC addresses and masks are stored in multiple entries of
10 the classification rule table, this is not an efficient implementation, since there has to be
11 one rule for each destination MAC addresses and masks with all other fields empty. This
12 implementation will also increase the size of classification rule table, especially in the BS.

wmanIfBsClassifierRuleTable				
wmanIfBsSfld	wmanIfBsClassifierIndex	wmanIfBsClassifierRuleDestMacAddr	wmanIfBsClassifierDestMacMask	...
101	10	df:24:5a:56	ff:ff:ff:00	
101	11	df:24:5a:57	ff:ff:ff:00	
101	12	df:24:5a:58	ff:ff:ff:00	
101	13	df:24:5a:59	ff:ff:ff:00	
101	14	df:24:5a:5a	ff:ff:ff:00	

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29 **Figure 2: Existing wmanIfBsClassifierRuleTable**

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31 Fig 3 shows an example of this proposal. A new table –
32 wmanIfBsClassifierDstMacAdrTable – is created to store the list of destination MAC
33 addresses and MAC address mask. This list is identified by
34 wmanIfBsClassifierDstMacAdrRuleIndex that can be referred by
35 wmanIfBsClassifierDstMacAdrRule in the wmanIfBsClassifierRuleTable. Each element in
36 the list is identified by wmanIfBsClassifierDstMacAdrListIndex.

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wmanIfBsClassifierRuleTable				
wmanIfBsSfId	wmanIfBsClassifierIndex	wmanIfBsClassifierDstMacAdrRule	...	wmanIfBsClassifierBitMap
101	10	55		

wmanIfBsClassifierDstMacAdrTable			
wmanIfBsDstMacAdrRuleIndex	wmanIfBsDstMacAdrListIndex	wmanIfBsClassifierDestMacAddr	wmanIfBsClassifierDestMacMask
55	1	df:24:5a:56	ff:ff:ff:00
55	2	df:24:5a:57	ff:ff:ff:00
55	3	df:24:5a:58	ff:ff:ff:00
55	4	df:24:5a:59	ff:ff:ff:00
55	5	df:24:5a:5a	ff:ff:ff:00

Figure 3: New wmanIfBsClassifierRuleTable

This contribution proposes the following:

- Remove the following tables from IEEE P802.16f/D3
 - wmanIfBsClassifierRuleTable
 - wmanIfCmnClassifierRuleTable
- Add the following tables, as defined in section 2, to IEEE P802.16f/D3
 - wmanIfBsClasifierRuleTable
 - wmanIfBsClasifierSrcIpAdrTable
 - wmanIfBsClasifierDstIpAdrTable
 - wmanIfBsClasifierSrcIpPortTable
 - wmanIfBsClasifierDstIpPortTable
 - wmanIfBsClasifierSrcMacAdrTable
 - wmanIfBsClasifierDstMacAdrTable
 - wmanIfCmnClasifierRuleTable
 - wmanIfCmnClasifierSrcIpAdrTable
 - wmanIfCmnClasifierDstIpAdrTable
 - wmanIfCmnClasifierSrcIpPortTable
 - wmanIfCmnClasifierDstIpPortTable
 - wmanIfCmnClasifierSrcMacAdrTable
 - wmanIfCmnClasifierDstMacAdrTable

2. ASN.1 Definition of Packet Classification Rule

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1
2
3 wmanIfBsClassifierRuleTable OBJECT-TYPE
4     SYNTAX      SEQUENCE OF WmanIfBsClassifierRuleEntry
5     MAX-ACCESS  not-accessible
6     STATUS      current
7     DESCRIPTION
8         "This table contains packet classifier rules associated
9         with service flows."
10    REFERENCE
11        "Section 11.13.19.3.4 in IEEE 802.16-2004"
12    ::= { wmanIfBsPacketCs 4 }
13
14 wmanIfBsClassifierRuleEntry OBJECT-TYPE
15     SYNTAX      WmanIfBsClassifierRuleEntry
16     MAX-ACCESS  not-accessible
17     STATUS      current
18     DESCRIPTION
19         "This table provides one row for each packet classifier
20         rule, and is indexed by wmanIfBsSfId and
21         wmanIfBsClassifierIndex. wmanIfBsSfId identifies
22         the service flow, while wmanIfBsClassifierIndex
23         identifies the packet classifier rule."
24     INDEX { wmanIfBsSfId, wmanIfBsClassifierIndex }
25     ::= { wmanIfBsClassifierRuleTable 1 }
26
27 WmanIfBsClassifierRuleEntry ::= SEQUENCE {
28     wmanIfBsClassifierIndex      Unsigned32,
29     wmanIfBsClassifierPriority    INTEGER,
30     wmanIfBsClassifierIpTosLow   INTEGER,
31     wmanIfBsClassifierIpTosHigh  INTEGER,
32     wmanIfBsClassifierIpTosMask  INTEGER,
33     wmanIfBsClassifierIpProtcl   Integer32,
34     wmanIfBsClassifierIpAddrType InetAddressType,
35     wmanIfBsClassifierSrcIpAddrRule Unsigned32,
36     wmanIfBsClassifierDstIpAddrRule Unsigned32,
37     wmanIfBsClassifierSrcIpPortRule Unsigned32,
38     wmanIfBsClassifierDstIpPortRule Unsigned32,
39     wmanIfBsClassifierDstMacAdrRule Unsigned32,
40     wmanIfBsClassifierSrcMacAdrRule Unsigned32,
41     wmanIfBsClassifierEnetProtclType INTEGER,
42     wmanIfBsClassifierEnetProtcl Integer32,
43     wmanIfBsClassifierUserPriLow Integer32,
44     wmanIfBsClassifierUserPriHigh Integer32,
45     wmanIfBsClassifierVlanId     Integer32,
46     wmanIfBsClassifierState      INTEGER,
47     wmanIfBsClassifierPhsSize    Integer32,
48     wmanIfBsClassifierPhsMask    OCTET STRING,
49     wmanIfBsClassifierPhsVerify  WmanIfPhsRulVerifyType,
50     wmanIfBsClassifierBitMap     WmanIfClassifierBitMap,
51     wmanIfBsClassifierRowStatus  RowStatus}

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1
2 wmanIfBsClassifierIndex OBJECT-TYPE
3     SYNTAX      Unsigned32 (1..4294967295)
4     MAX-ACCESS  not-accessible
5     STATUS      current
6     DESCRIPTION
7         "An index is assigned to a classifier in BS classifiers
8         table"
9     ::= { wmanIfBsClassifierRuleEntry 1 }
10
11 wmanIfBsClassifierPriority OBJECT-TYPE
12     SYNTAX      INTEGER (0..255)
13     MAX-ACCESS  read-create
14     STATUS      current
15     DESCRIPTION
16         "The value specifies the priority for the Classifier, which
17         is used for determining the order of the Classifier. A
18         higher value indicates higher priority. Classifiers may
19         have priorities in the range 0..255."
20     REFERENCE
21         "Section 11.13.19.3.4.1 in IEEE 802.16-2004"
22     DEFVAL      { 0 }
23     ::= { wmanIfBsClassifierRuleEntry 2 }
24
25 wmanIfBsClassifierIpTosLow OBJECT-TYPE
26     SYNTAX      INTEGER (0..255)
27     MAX-ACCESS  read-create
28     STATUS      current
29     DESCRIPTION
30         "The low value of a range of TOS byte values. If the
31         referenced parameter is not present in a classifier, this
32         object reports the value of 0."
33     REFERENCE
34         "Section 11.13.19.3.4.2 in IEEE 802.16-2004"
35     ::= { wmanIfBsClassifierRuleEntry 3 }
36
37 wmanIfBsClassifierIpTosHigh OBJECT-TYPE
38     SYNTAX      INTEGER (0..255)
39     MAX-ACCESS  read-create
40     STATUS      current
41     DESCRIPTION
42         "The 8-bit high value of a range of TOS byte values.
43         If the referenced parameter is not present in a classifier
44         , this object reports the value of 0."
45     REFERENCE
46         "Section 11.13.19.3.4.2 in IEEE 802.16-2004"
47     ::= { wmanIfBsClassifierRuleEntry 4 }
48
49 wmanIfBsClassifierIpTosMask OBJECT-TYPE
50     SYNTAX      INTEGER (0..255)
51     MAX-ACCESS  read-create
52     STATUS      current
53     DESCRIPTION
54         "The mask value is bitwise ANDed with TOS byte in an IP

```

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1         packet and this value is used check range checking of
2         TosLow and TosHigh. If the referenced parameter is not
3         present in a classifier, this object reports the value
4         of 0."
5     REFERENCE
6         "Section 11.13.19.3.4.2 in IEEE 802.16-2004"
7     ::= { wmanIfBsClassifierRuleEntry 5 }
8
9 wmanIfBsClassifierIpProtocl OBJECT-TYPE
10     SYNTAX      Integer32 (0..255)
11     MAX-ACCESS  read-create
12     STATUS      current
13     DESCRIPTION
14         "This object indicates the value of the IP Protocol field
15         required for IP packets to match this rule. If the
16         referenced parameter is not present in a classifier, this
17         object reports the value of 0."
18     REFERENCE
19         "Section 11.13.19.3.4.3 in IEEE 802.16-2004"
20     ::= { wmanIfBsClassifierRuleEntry 6 }
21
22 wmanIfBsClassifierIpAddrType OBJECT-TYPE
23     SYNTAX      InetAddressType
24     MAX-ACCESS  read-create
25     STATUS      current
26     DESCRIPTION
27         "The type of the internet address for
28         wmanIfBsClassifierSrcIpAddr,
29         wmanIfBsClassifierSrcIpMask,
30         wmanIfBsClassifierDestIpAddr, and
31         wmanIfBsClassifierDestIpMask.
32         If the referenced parameter is not present in a classifier
33         ,this object reports the value of ipv4(1)."
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1         and its corresponding address mask. This parameter should
2         be set to NULL, if the IP destination address rule is not
3         to be used in the classifier."
4     REFERENCE
5         "Section 11.13.19.3.4.5 in IEEE 802.16-2004"
6     ::= { wmanIfBsClassifierRuleEntry 9 }
7
8 wmanIfBsClassifierSrcIpPortRule OBJECT-TYPE
9     SYNTAX      Unsigned32
10    MAX-ACCESS  read-create
11    STATUS      current
12    DESCRIPTION
13        "This object specifies the inclusive range of TCP/UDP
14        source port numbers to which a packet is compared. This
15        parameter should be set to NULL, if the source port rule
16        is not to be used in the classifier."
17    REFERENCE
18        "Section 11.13.19.3.4.6 in IEEE 802.16-2004"
19    ::= { wmanIfBsClassifierRuleEntry 10 }
20
21 wmanIfBsClassifierDstIpPortRule OBJECT-TYPE
22    SYNTAX      Unsigned32
23    MAX-ACCESS  read-create
24    STATUS      current
25    DESCRIPTION
26        "This parameter specifies inclusive range of TCP/UDP
27        destination port numbers to which a packet is compared.
28        This parameter should be set to NULL, if the destination
29        port rule is not to be used in the classifier."
30    REFERENCE
31        "Section 11.13.19.3.4.7 in IEEE 802.16-2004"
32    ::= { wmanIfBsClassifierRuleEntry 11 }
33
34 wmanIfBsClassifierDstMacAdrRule OBJECT-TYPE
35    SYNTAX      Unsigned32
36    MAX-ACCESS  read-create
37    STATUS      current
38    DESCRIPTION
39        "This parameter specifies a list of destination MAC address
40        and its corresponding address mask. This parameter should
41        be set to NULL, if the destination MAC address rule is
42        not to be used in the classifier."
43    REFERENCE
44        "Section 11.13.19.3.4.8 in IEEE 802.16-2004"
45    ::= { wmanIfBsClassifierRuleEntry 12 }
46
47 wmanIfBsClassifierSrcMacAdrRule OBJECT-TYPE
48    SYNTAX      Unsigned32
49    MAX-ACCESS  read-create
50    STATUS      current
51    DESCRIPTION
52        "This parameter specifies a list of source MAC address
53        and its corresponding address mask. This parameter should
54        be set to NULL, if the source MAC address rule is not to
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1         be used in
2         the classifier."
3     REFERENCE
4         "Section 11.13.19.3.4.9 in IEEE 802.16-2004"
5     ::= { wmanIfBsClasifierRuleEntry 13 }
6
7 wmanIfBsClasifierEnetProtclType OBJECT-TYPE
8     SYNTAX      INTEGER {none(0),
9                 ethertype(1),
10                dsap(2)}
11     MAX-ACCESS  read-create
12     STATUS      current
13     DESCRIPTION
14         "This object indicates the format of the layer 3 protocol
15         id in the Ethernet packet. A value of none(0) means that
16         the rule does not use the layer 3 protocol type as a
17         matching criteria. A value of ethertype(1) means that the
18         rule applies only to frames which contains an EtherType
19         value. Ethertype values are contained in packets using
20         the Dec-Intel-Xerox (DIX) encapsulation or the RFC1042
21         Sub-Network Access Protocol (SNAP) encapsulation formats.
22         A value of dsap(2) means that the rule applies only to
23         frames using the IEEE802.3 encapsulation format with a
24         Destination Service Access Point (DSAP) other than 0xAA
25         (which is reserved for SNAP). If the Ethernet frame
26         contains an 802.1P/Q Tag header (i.e. EtherType 0x8100),
27         this object applies to the embedded EtherType field within
28         the 802.1P/Q header. If the referenced parameter is not
29         present in a classifier, this object reports the value of
30         0."
31     REFERENCE
32         "Section 11.13.19.3.4.10 in IEEE 802.16-2004"
33     ::= { wmanIfBsClasifierRuleEntry 14 }
34
35 wmanIfBsClasifierEnetProtcl OBJECT-TYPE
36     SYNTAX      Integer32 (0..65535)
37     MAX-ACCESS  read-create
38     STATUS      current
39     DESCRIPTION
40         "If wmanIfBsClasifierEnetProtocolType is none(0),
41         this object is ignored when considering whether a packet
42         matches the current rule.
43         If wmanIfBsClasifierEnetProtclType is ethertype(1),
44         this object gives the 16-bit value of the EtherType that
45         the packet must match in order to match the rule.
46         If wmanIfBsClasifierEnetProtclType is dsap(2), the
47         lower 8 bits of this object's value must match the DSAP
48         byte of the packet in order to match the rule.
49         If the Ethernet frame contains an 802.1P/Q Tag header
50         (i.e. EtherType 0x8100), this object applies to the
51         embedded EtherType field within the 802.1P/Q header.
52         If the referenced parameter is not present in the
53         classifier, the value of this object is reported as 0."
54     REFERENCE

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1         "Section 11.13.19.3.4.10 in IEEE 802.16-2004"
2         ::= { wmanIfBsClassifierRuleEntry 15 }
3
4 wmanIfBsClassifierUserPriLow OBJECT-TYPE
5     SYNTAX      Integer32 (0..7)
6     MAX-ACCESS  read-create
7     STATUS      current
8     DESCRIPTION
9         "This object applies only to Ethernet frames using the
10        802.1P/Q tag header (indicated with EtherType 0x8100).
11        Such frames include a 16-bit Tag that contains a 3 bit
12        Priority field and a 12 bit VLAN number.
13        Tagged Ethernet packets must have a 3-bit Priority field
14        within the range of wmanIfBsClassifierPriLow and
15        wmanIfBsClassifierPriHigh in order to match this
16        rule.
17        If the referenced parameter is not present in the
18        classifier, the value of this object is reported as 0."
19     REFERENCE
20         "Section 11.13.19.3.4.11 in IEEE 802.16-2004"
21     ::= { wmanIfBsClassifierRuleEntry 16 }
22
23 wmanIfBsClassifierUserPriHigh OBJECT-TYPE
24     SYNTAX      Integer32 (0..7)
25     MAX-ACCESS  read-create
26     STATUS      current
27     DESCRIPTION
28         "This object applies only to Ethernet frames using the
29        802.1P/Q tag header (indicated with EtherType 0x8100).
30        Such frames include a 16-bit Tag that contains a 3 bit
31        Priority field and a 12 bit VLAN number.
32        Tagged Ethernet packets must have a 3-bit Priority
33        field within the range of wmanIfBsClassifierPriLow
34        and wmanIfBsClassifierPriHigh in order to match
35        this rule.
36        If the referenced parameter is not present in the
37        classifier, the value of this object is reported as 7."
38     REFERENCE
39         "Section 11.13.19.3.4.11 in IEEE 802.16-2004"
40     ::= { wmanIfBsClassifierRuleEntry 17 }
41
42 wmanIfBsClassifierVlanId OBJECT-TYPE
43     SYNTAX      Integer32 (0..4095)
44     MAX-ACCESS  read-create
45     STATUS      current
46     DESCRIPTION
47         "This object applies only to Ethernet frames using the
48        802.1P/Q tag header.
49        If this object's value is nonzero, tagged packets must
50        have a VLAN Identifier that matches the value in order
51        to match the rule.
52        Only the least significant 12 bits of this object's
53        value are valid.
54        If the referenced parameter is not present in the

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1         classifier, the value of this object is reported as 0."
2     REFERENCE
3         "Section 11.13.19.3.4.12 in IEEE 802.16-2004"
4     ::= { wmanIfBsClassifierRuleEntry 18 }
5
6 wmanIfBsClassifierState OBJECT-TYPE
7     SYNTAX      INTEGER {active(1),
8                 inactive(2)}
9     MAX-ACCESS  read-create
10    STATUS      current
11    DESCRIPTION
12        "This object indicates whether or not the classifier is
13         enabled to classify packets to a Service Flow.
14         If the referenced parameter is not present in the
15         classifier, the value of this object is reported
16         as active(1)."

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1         1 = suppress (x+1) byte of the suppression field
2         where the length of the octet string is ceiling
3         (wmanIfBsClasifierPhsSize/8). BS should use this value
4         to create a new PHS rule index (PHSI) and field (PHSF) as
5         defined in the standard. If flag phsMask in
6         wmanIfBsClasifierBitMap is set to 0 and flag phsSize
7         in wmanIfBsClasifierBitMap is set to 0, then BS can
8         still create PHS rules using its own custom mask (i.e. the
9         rule is not configured by NMS)."
```

REFERENCE

```

11        "Section 11.13.19.3.7.3 in IEEE 802.16-2004"
12        ::= { wmanIfBsClasifierRuleEntry 21 }
```

wmanIfBsClasifierPhsVerify OBJECT-TYPE

```

15        SYNTAX          WmanIfPhsRulVerifyType
16        MAX-ACCESS      read-create
17        STATUS          current
18        DESCRIPTION
19            "The value of this field indicates to the sending entity
20            whether or not the packet header contents are to be
21            verified prior to performing suppression."
22        DEFVAL          { phsVerifyEnable }
23        ::= { wmanIfBsClasifierRuleEntry 22 }
```

wmanIfBsClasifierBitMap OBJECT-TYPE

```

26        SYNTAX          WmanIfClassifierBitMap
27        MAX-ACCESS      read-create
28        STATUS          current
29        DESCRIPTION
30            "This object indicates which parameter encodings were
31            actually present in the entry. A bit set to '1' indicates
32            the corresponding classifier encoding is present, and '0'
33            means otherwise"
34        ::= { wmanIfBsClasifierRuleEntry 23 }
```

wmanIfBsClasifierRowStatus OBJECT-TYPE

```

37        SYNTAX          RowStatus
38        MAX-ACCESS      read-create
39        STATUS          current
40        DESCRIPTION
41            "This object is used to create a new row or modify or
42            delete an existing row in this table.
43
44            If the implementator of this MIB has choosen not
45            to implement 'dynamic assignment' of profiles, this
46            object is not useful and should return noSuchName
47            upon SNMP request."
48        ::= { wmanIfBsClasifierRuleEntry 24 }
```

wmanIfBsClasifierSrcIpAdrTable OBJECT-TYPE

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51        SYNTAX          SEQUENCE OF WmanIfBsClasifierSrcIpAdrEntry
52        MAX-ACCESS      not-accessible
53        STATUS          current
54        DESCRIPTION
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1           "This table contains list of IP source addresses and their
2             corresponding address masks."
3     REFERENCE
4           "Section 11.13.19.3.4.4 in IEEE 802.16-2004"
5     ::= { wmanIfBsPacketCs 5 }
6
7     wmanIfBsClasifierSrcIpAdrEntry OBJECT-TYPE
8         SYNTAX      WmanIfBsClasifierSrcIpAdrEntry
9         MAX-ACCESS  not-accessible
10        STATUS      current
11        DESCRIPTION
12            "This table provides one row for each source IP
13              address and it's corresponding address mask, and is
14              indexed by wmanIfBsSrcIpAdrRuleIndex and
15              wmanIfBsSrcIpAdrListIndex."
16        INDEX { wmanIfBsSrcIpAdrRuleIndex, wmanIfBsSrcIpAdrListIndex }
17        ::= { wmanIfBsClasifierSrcIpAdrTable 1 }
18
19     WmanIfBsClasifierSrcIpAdrEntry ::= SEQUENCE {
20         wmanIfBsSrcIpAdrRuleIndex      Unsigned32,
21         wmanIfBsSrcIpAdrListIndex      Unsigned32,
22         wmanIfBsClasifierSrcIpAddr     InetAddress,
23         wmanIfBsClasifierSrcIpMask     InetAddress}
24
25     wmanIfBsSrcIpAdrRuleIndex OBJECT-TYPE
26         SYNTAX      Unsigned32 (1..4294967295)
27         MAX-ACCESS  not-accessible
28         STATUS      current
29         DESCRIPTION
30            "This index identifies a list of source IP address and
31              it's corresponding address mask. This index maps to
32              wmanIfBsClasifierSrcIpAddrRule in
33              wmanIfBsClasifierRuleTable"
34        ::= { wmanIfBsClasifierSrcIpAdrEntry 1 }
35
36     wmanIfBsSrcIpAdrListIndex OBJECT-TYPE
37         SYNTAX      Unsigned32 (1..4294967295)
38         MAX-ACCESS  not-accessible
39         STATUS      current
40         DESCRIPTION
41            "An index is assigned to an entry in the list."
42        ::= { wmanIfBsClasifierSrcIpAdrEntry 2 }
43
44     wmanIfBsClasifierSrcIpAddr OBJECT-TYPE
45         SYNTAX      InetAddress
46         MAX-ACCESS  read-create
47         STATUS      current
48         DESCRIPTION
49            "This object specifies the value of the IP Source Address
50              required for packets to match this rule. An IP packet
51              matches the rule when the packet ip source address bitwise
52              ANDed with the wmanIfBsClasifierSrcIpMask value
53              equals the wmanIfBsClasifierSrcIpAddr value.
54              If the referenced parameter is not present n a classifier,

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1         this object reports the value of 0.0.0.0."
2     REFERENCE
3         "Section 11.13.19.3.4.4 in IEEE 802.16-2004"
4     ::= { wmanIfBsClasifierSrcIpAdrEntry 3 }
5
6 wmanIfBsClasifierSrcIpMask OBJECT-TYPE
7     SYNTAX      InetAddress
8     MAX-ACCESS  read-create
9     STATUS      current
10    DESCRIPTION
11        "This object specifies which bits of a packet's IP Source
12        Address that are compared to match this rule. An IP packet
13        matches the rule when the packet source address bitwise
14        ANDed with the
15        wmanIfBsClasifierSrcIpMask value equals the
16        wmanIfBsClasifierSrcIpAddr value.
17        If the referenced parameter is not present in a classifier
18        ,this object reports the value of 0.0.0.0."
19    REFERENCE
20        "Section 11.13.19.3.4.4 in IEEE 802.16-2004"
21    ::= { wmanIfBsClasifierSrcIpAdrEntry 4 }
22
23 wmanIfBsClasifierDstIpAdrTable OBJECT-TYPE
24     SYNTAX      SEQUENCE OF WmanIfBsClasifierDstIpAdrEntry
25     MAX-ACCESS  not-accessible
26     STATUS      current
27     DESCRIPTION
28        "This table contains a list of IP destination address
29        and their corresponding mask."
30    REFERENCE
31        "Section 11.13.19.3.4.5 in IEEE 802.16-2004"
32    ::= { wmanIfBsPacketCs 6 }
33
34 wmanIfBsClasifierDstIpAdrEntry OBJECT-TYPE
35     SYNTAX      WmanIfBsClasifierDstIpAdrEntry
36     MAX-ACCESS  not-accessible
37     STATUS      current
38     DESCRIPTION
39        "This table provides one row for each destination IP
40        address and it's corresponding address mask, and is
41        indexed by wmanIfBsDstIpAdrRuleIndex and
42        wmanIfBsDstIpAdrListIndex."
43     INDEX { wmanIfBsDstIpAdrRuleIndex, wmanIfBsDstIpAdrListIndex }
44     ::= { wmanIfBsClasifierDstIpAdrTable 1 }
45
46 WmanIfBsClasifierDstIpAdrEntry ::= SEQUENCE {
47     wmanIfBsDstIpAdrRuleIndex      Unsigned32,
48     wmanIfBsDstIpAdrListIndex     Unsigned32,
49     wmanIfBsClasifierDestIpAddr    InetAddress,
50     wmanIfBsClasifierDestIpMask    InetAddress}
51
52 wmanIfBsDstIpAdrRuleIndex OBJECT-TYPE
53     SYNTAX      Unsigned32 (1..4294967295)
54     MAX-ACCESS  not-accessible

```

```

1      STATUS      current
2      DESCRIPTION
3          "This index identifies a list of destination IP address
4          and it's corresponding address mask. This index maps to
5          wmanIfBsClasifierDstIpAddrRule in
6          wmanIfBsClasifierRuleTable"
7      ::= { wmanIfBsClasifierDstIpAdrEntry 1 }
8
9  wmanIfBsDstIpAdrListIndex OBJECT-TYPE
10     SYNTAX      Unsigned32 (1..4294967295)
11     MAX-ACCESS  not-accessible
12     STATUS      current
13     DESCRIPTION
14         "An index is assigned to an entry in the list."
15     ::= { wmanIfBsClasifierDstIpAdrEntry 2 }
16
17 wmanIfBsClasifierDestIpAddr OBJECT-TYPE
18     SYNTAX      InetAddress
19     MAX-ACCESS  read-create
20     STATUS      current
21     DESCRIPTION
22         "This object specifies the value of the IP Destination
23         Address required for packets to match this rule. An IP
24         packet matches the rule when the packet IP destination
25         address bitwise ANDed with the
26         wmanIfBsClasifierDestIpMask value equals the
27         wmanIfBsClasifierDestIpAddr value.
28         If the referenced parameter is not present in a
29         classifier, this object reports the value of 0.0.0.0."
30     REFERENCE
31         "Section 11.13.19.3.4.5 in IEEE 802.16-2004"
32     ::= { wmanIfBsClasifierDstIpAdrEntry 3 }
33
34 wmanIfBsClasifierDestIpMask OBJECT-TYPE
35     SYNTAX      InetAddress
36     MAX-ACCESS  read-create
37     STATUS      current
38     DESCRIPTION
39         "This object specifies which bits of a packet's IP
40         Destination Address that are compared to match this rule.
41         An IP packet matches the rule when the packet destination
42         address bitwise ANDed with the
43         wmanIfBsClasifierDestIpMask value equals the
44         wmanIfBsClasifierDestIpAddr value.
45         If the referenced parameter is not present in a classifier
46         , this object reports the value of 0.0.0.0."
47     REFERENCE
48         "Section 11.13.19.3.4.5 in IEEE 802.16-2004"
49     ::= { wmanIfBsClasifierDstIpAdrEntry 4 }
50
51 wmanIfBsClasifierSrcIpPortTable OBJECT-TYPE
52     SYNTAX      SEQUENCE OF WmanIfBsClasifierSrcIpPortEntry
53     MAX-ACCESS  not-accessible
54     STATUS      current

```



```

1      DESCRIPTION
2          "This table contains a list of nonoverlapping ranges
3          of protocol source port values. Classifier rules with
4          port numbers are protocol specific."
5      REFERENCE
6          "Section 11.13.19.3.4.6 in IEEE 802.16-2004"
7      ::= { wmanIfBsPacketCs 7 }
8
9      wmanIfBsClasifierSrcIpPortEntry OBJECT-TYPE
10         SYNTAX      WmanIfBsClasifierSrcIpPortEntry
11         MAX-ACCESS  not-accessible
12         STATUS      current
13         DESCRIPTION
14             "This table provides one row for each range of source ports
15             identified by wmanIfBsClasifierSrcIpPortStart and
16             wmanIfBsClasifierSrcIpPortEnd, and is indexed by
17             wmanIfBsSrcIpPortRuleIndex and wmanIfBsSrcIpPortListIndex."
18         INDEX { wmanIfBsSrcIpPortRuleIndex,
19               wmanIfBsSrcIpPortListIndex }
20         ::= { wmanIfBsClasifierSrcIpPortTable 1 }
21
22      WmanIfBsClasifierSrcIpPortEntry ::= SEQUENCE {
23          wmanIfBsSrcIpPortRuleIndex      Unsigned32,
24          wmanIfBsSrcIpPortListIndex      Unsigned32,
25          wmanIfBsClasifierSrcIpPortStart Integer32,
26          wmanIfBsClasifierSrcIpPortEnd   Integer32}
27
28      wmanIfBsSrcIpPortRuleIndex OBJECT-TYPE
29         SYNTAX      Unsigned32 (1..4294967295)
30         MAX-ACCESS  not-accessible
31         STATUS      current
32         DESCRIPTION
33             "This index identifies a list of nonoverlapping ranges
34             of protocol source port values. This index maps to
35             wmanIfBsClasifierSrcIpPortRule in
36             wmanIfBsClasifierRuleTable"
37         ::= { wmanIfBsClasifierSrcIpPortEntry 1 }
38
39      wmanIfBsSrcIpPortListIndex OBJECT-TYPE
40         SYNTAX      Unsigned32 (1..4294967295)
41         MAX-ACCESS  not-accessible
42         STATUS      current
43         DESCRIPTION
44             "An index is assigned to an entry in the list."
45         ::= { wmanIfBsClasifierSrcIpPortEntry 2 }
46
47      wmanIfBsClasifierSrcIpPortStart OBJECT-TYPE
48         SYNTAX      Integer32 (0..65535)
49         MAX-ACCESS  read-create
50         STATUS      current
51         DESCRIPTION
52             "This object specifies the low end inclusive range of
53             TCP/UDP source port numbers to which a packet is compared.
54             This object is irrelevant for non-TCP/UDP IP packets.

```

```

1           If the referenced parameter is not present in a
2           classifier, this object reports the value of 0."
3 REFERENCE
4           "Section 11.13.19.3.4.6 in IEEE 802.16-2004"
5 ::= { wmanIfBsClassifierSrcIpPortEntry 3 }
6
7 wmanIfBsClassifierSrcIpPortEnd OBJECT-TYPE
8     SYNTAX      Integer32 (0..65535)
9     MAX-ACCESS  read-create
10    STATUS      current
11    DESCRIPTION
12       "This object specifies the high end inclusive range of
13       TCP/UDP source port numbers to which a packet is compared.
14       This object is irrelevant for non-TCP/UDP IP packets.
15       If the referenced parameter is not present in a classifier
16       , this object reports the value of 65535."
17    REFERENCE
18       "Section 11.13.19.3.4.6 in IEEE 802.16-2004"
19    ::= { wmanIfBsClassifierSrcIpPortEntry 4 }
20
21 wmanIfBsClassifierDstIpPortTable OBJECT-TYPE
22    SYNTAX      SEQUENCE OF WmanIfBsClassifierDstIpPortEntry
23    MAX-ACCESS  not-accessible
24    STATUS      current
25    DESCRIPTION
26       "This table contains a list of nonoverlapping ranges of
27       protocol destination port values. Classifier rules with
28       port numbers are protocol specific;."
29    REFERENCE
30       "Section 11.13.19.3.4.7 in IEEE 802.16-2004"
31    ::= { wmanIfBsPacketCs 8 }
32
33 wmanIfBsClassifierDstIpPortEntry OBJECT-TYPE
34    SYNTAX      WmanIfBsClassifierDstIpPortEntry
35    MAX-ACCESS  not-accessible
36    STATUS      current
37    DESCRIPTION
38       "This table provides one row for each range of destination
39       identified by wmanIfBsClassifierDstIpPortStart and
40       wmanIfBsClassifierDstIpPortEnd, and is indexed by
41       wmanIfBsDstIpPortRuleIndex and wmanIfBsDstIpPortListIndex."
42    INDEX { wmanIfBsDstIpPortRuleIndex,
43           wmanIfBsDstIpPortListIndex }
44    ::= { wmanIfBsClassifierDstIpPortTable 1 }
45
46 WmanIfBsClassifierDstIpPortEntry ::= SEQUENCE {
47     wmanIfBsDstIpPortRuleIndex      Unsigned32,
48     wmanIfBsDstIpPortListIndex      Unsigned32,
49     wmanIfBsClassifierDstIpPortStart Integer32,
50     wmanIfBsClassifierDstIpPortEnd  Integer32}
51
52 wmanIfBsDstIpPortRuleIndex OBJECT-TYPE
53    SYNTAX      Unsigned32 (1..4294967295)
54    MAX-ACCESS  not-accessible

```

```

1      STATUS      current
2      DESCRIPTION
3          "This index identifies a list of nonoverlapping ranges
4          of protocol destination port values. This index maps to
5          wmanIfBsClasifierDstIpPortRule in
6          wmanIfBsClasifierRuleTable"
7      ::= { wmanIfBsClasifierDstIpPortEntry 1 }
8
9  wmanIfBsDstIpPortListIndex OBJECT-TYPE
10     SYNTAX      Unsigned32 (1..4294967295)
11     MAX-ACCESS  not-accessible
12     STATUS      current
13     DESCRIPTION
14         "An index is assigned to an entry in the list."
15     ::= { wmanIfBsClasifierDstIpPortEntry 2 }
16
17 wmanIfBsClasifierDstIpPortStart OBJECT-TYPE
18     SYNTAX      Integer32 (0..65535)
19     MAX-ACCESS  read-create
20     STATUS      current
21     DESCRIPTION
22         "This object specifies the low end inclusive range of
23         TCP/UDP destination port numbers to which a packet is
24         compared. If the referenced parameter is not present
25         in a classifier, this object reports the value of 0."
26     REFERENCE
27         "Section 11.13.19.3.4.7 in IEEE 802.16-2004"
28     ::= { wmanIfBsClasifierDstIpPortEntry 3 }
29
30 wmanIfBsClasifierDstIpPortEnd OBJECT-TYPE
31     SYNTAX      Integer32 (0..65535)
32     MAX-ACCESS  read-create
33     STATUS      current
34     DESCRIPTION
35         "This object specifies the high end inclusive range of
36         TCP/UDP destination port numbers to which a packet is
37         compared. If the referenced parameter is not present
38         in a classifier, this object reports the value of
39         65535."
40     REFERENCE
41         "Section 11.13.19.3.4.7 in IEEE 802.16-2004"
42     ::= { wmanIfBsClasifierDstIpPortEntry 4 }
43
44 wmanIfBsClasifierDstMacAdrTable OBJECT-TYPE
45     SYNTAX      SEQUENCE OF WmanIfBsClasifierDstMacAdrEntry
46     MAX-ACCESS  not-accessible
47     STATUS      current
48     DESCRIPTION
49         "This table contains a list of MAC destination addresses
50         and their corresponding address masks."
51     REFERENCE
52         "Section 11.13.19.3.4.8 in IEEE 802.16-2004"
53     ::= { wmanIfBsPacketCs 9 }
54

```

```

1 wmanIfBsClasifierDstMacAdrEntry OBJECT-TYPE
2     SYNTAX      WmanIfBsClasifierDstMacAdrEntry
3     MAX-ACCESS  not-accessible
4     STATUS      current
5     DESCRIPTION
6         "This table provides one row for each destination MAC
7         address and it's corresponding address mask, and is
8         indexed by wmanIfBsDstMacAdrRuleIndex and
9         wmanIfBsDstMacAdrListIndex."
10    INDEX { wmanIfBsDstMacAdrRuleIndex,
11            wmanIfBsDstMacAdrListIndex }
12    ::= { wmanIfBsClasifierDstMacAdrTable 1 }
13
14 WmanIfBsClasifierDstMacAdrEntry ::= SEQUENCE {
15     wmanIfBsDstMacAdrRuleIndex      Unsigned32,
16     wmanIfBsDstMacAdrListIndex      Unsigned32,
17     wmanIfBsClasifierDestMacAddr    MacAddress,
18     wmanIfBsClasifierDestMacMask    MacAddress}
19
20 wmanIfBsDstMacAdrRuleIndex OBJECT-TYPE
21     SYNTAX      Unsigned32 (1..4294967295)
22     MAX-ACCESS  not-accessible
23     STATUS      current
24     DESCRIPTION
25         "This index identifies a list of destination MAC address
26         and it's corresponding address mask. This index maps to
27         wmanIfBsClasifierDstMacAdrRule in
28         wmanIfBsClasifierRuleTable"
29     ::= { wmanIfBsClasifierDstMacAdrEntry 1 }
30
31 wmanIfBsDstMacAdrListIndex OBJECT-TYPE
32     SYNTAX      Unsigned32 (1..4294967295)
33     MAX-ACCESS  not-accessible
34     STATUS      current
35     DESCRIPTION
36         "An index is assigned to an entry in the list."
37     ::= { wmanIfBsClasifierDstMacAdrEntry 2 }
38
39 wmanIfBsClasifierDestMacAddr OBJECT-TYPE
40     SYNTAX      MacAddress
41     MAX-ACCESS  read-create
42     STATUS      current
43     DESCRIPTION
44         "An Ethernet packet matches an entry when its destination
45         MAC address bitwise ANDed with
46         wmanIfBsClasifierDestMacMask equals the value of
47         wmanIfBsClasifierDestMacAddr. If the referenced
48         parameter is not present in a classifier, this object
49         reports the value of '000000000000'H."
50     REFERENCE
51         "Section 11.13.19.3.4.8 in IEEE 802.16-2004"
52     ::= { wmanIfBsClasifierDstMacAdrEntry 3 }
53
54 wmanIfBsClasifierDestMacMask OBJECT-TYPE

```

```

1      SYNTAX      MacAddress
2      MAX-ACCESS  read-create
3      STATUS      current
4      DESCRIPTION
5          "An Ethernet packet matches an entry when its destination
6          MAC address bitwise ANDed with
7          wmanIfBsClasifierDestMacMask equals the value of
8          wmanIfBsClasifierDestMacAddr. If the referenced
9          parameter is not present in a classifier, this object
10         reports the value of '000000000000'H."
11     REFERENCE
12         "Section 11.13.19.3.4.8 in IEEE 802.16-2004"
13     ::= { wmanIfBsClasifierDstMacAdrEntry 4 }
14
15 wmanIfBsClasifierSrcMacAdrTable OBJECT-TYPE
16     SYNTAX      SEQUENCE OF WmanIfBsClasifierSrcMacAdrEntry
17     MAX-ACCESS  not-accessible
18     STATUS      current
19     DESCRIPTION
20         "This table contains a list of MAC source addresses
21         and their corresponding address masks."
22     REFERENCE
23         "Section 11.13.19.3.4.9 in IEEE 802.16-2004"
24     ::= { wmanIfBsPacketCs 10 }
25
26 wmanIfBsClasifierSrcMacAdrEntry OBJECT-TYPE
27     SYNTAX      WmanIfBsClasifierSrcMacAdrEntry
28     MAX-ACCESS  not-accessible
29     STATUS      current
30     DESCRIPTION
31         "This table provides one row for each source MAC
32         address and it's corresponding address mask, and is
33         indexed by wmanIfBsSrcMacAdrRuleIndex and
34         wmanIfBsSrcMacAdrListIndex."
35     INDEX { wmanIfBsSrcMacAdrRuleIndex,
36             wmanIfBsSrcMacAdrListIndex }
37     ::= { wmanIfBsClasifierSrcMacAdrTable 1 }
38
39 WmanIfBsClasifierSrcMacAdrEntry ::= SEQUENCE {
40     wmanIfBsSrcMacAdrRuleIndex      Unsigned32,
41     wmanIfBsSrcMacAdrListIndex      Unsigned32,
42     wmanIfBsClasifierSrcMacAddr     MacAddress,
43     wmanIfBsClasifierSrcMacMask     MacAddress}
44
45 wmanIfBsSrcMacAdrRuleIndex OBJECT-TYPE
46     SYNTAX      Unsigned32 (1..4294967295)
47     MAX-ACCESS  not-accessible
48     STATUS      current
49     DESCRIPTION
50         "An index identifies a list of source MAC address
51         and it's corresponding address mask. This index maps to
52         wmanIfBsClasifierSrcMacAdrRule in
53         wmanIfBsClasifierRuleTable"
54     ::= { wmanIfBsClasifierSrcMacAdrEntry 1 }

```

```

1
2 wmanIfBsSrcMacAdrListIndex OBJECT-TYPE
3     SYNTAX      Unsigned32 (1..4294967295)
4     MAX-ACCESS  not-accessible
5     STATUS      current
6     DESCRIPTION
7         "An index is assigned to an entry in the list."
8     ::= { wmanIfBsClasifierSrcMacAdrEntry 2 }
9
10 wmanIfBsClasifierSrcMacAddr OBJECT-TYPE
11     SYNTAX      MacAddress
12     MAX-ACCESS  read-create
13     STATUS      current
14     DESCRIPTION
15         "An Ethernet packet matches this entry when its source
16         MAC address bitwise ANDed with
17         wmanIfBsClasifierSrcMacMask equals the value
18         of wmanIfBsClasifierSrcMacAddr. If the
19         referenced parameter is not present in a classifier,
20         this object reports the value of '000000000000'H."
21     REFERENCE
22         "Section 11.13.19.3.4.9 in IEEE 802.16-2004"
23     ::= { wmanIfBsClasifierSrcMacAdrEntry 3 }
24
25 wmanIfBsClasifierSrcMacMask OBJECT-TYPE
26     SYNTAX      MacAddress
27     MAX-ACCESS  read-create
28     STATUS      current
29     DESCRIPTION
30         "An Ethernet packet matches an entry when its destination
31         MAC address bitwise ANDed with
32         wmanIfBsClasifierSrcMacMask equals the value of
33         wmanIfBsClasifierSrcMacAddr. If the referenced
34         parameter is not present in a classifier, this object
35         reports the value of '000000000000'H."
36     REFERENCE
37         "Section 11.13.19.3.4.9 in IEEE 802.16-2004"
38     ::= { wmanIfBsClasifierSrcMacAdrEntry 4 }
39
40 wmanIfCmnClasifierRuleTable OBJECT-TYPE
41     SYNTAX      SEQUENCE OF WmanIfCmnClasifierRuleEntry
42     MAX-ACCESS  not-accessible
43     STATUS      current
44     DESCRIPTION
45         "This table contains packet classifier rules associated
46         with service flows."
47     ::= { wmanIfCmnPacketCs 1 }
48
49 wmanIfCmnClasifierRuleEntry OBJECT-TYPE
50     SYNTAX      WmanIfCmnClasifierRuleEntry
51     MAX-ACCESS  not-accessible
52     STATUS      current
53     DESCRIPTION
54         "This table provides one row for each packet classifier

```

```

1         rule, and is indexed by wmanIfCmnCpsSfId and
2         wmanIfCmnClasifierIndex. wmanIfCmnCpsSfId
3         identifies the service flow, and
4         wmanIfCmnClasifierIndex identifies the packet
5         classifier rule."
6     INDEX { wmanIfCmnCpsSfId, wmanIfCmnClasifierIndex }
7     ::= { wmanIfCmnClasifierRuleTable 1 }
8
9 WmanIfCmnClasifierRuleEntry ::= SEQUENCE {
10     wmanIfCmnClasifierIndex           Unsigned32,
11     wmanIfCmnClasifierPriority        INTEGER,
12     wmanIfCmnClasifierIpTosLow       INTEGER,
13     wmanIfCmnClasifierIpTosHigh      INTEGER,
14     wmanIfCmnClasifierIpTosMask      INTEGER,
15     wmanIfCmnClasifierIpProtcl       Integer32,
16     wmanIfCmnClasifierIpAddrType     InetAddressType,
17     wmanIfCmnClasifierSrcIpAddrRule  Unsigned32,
18     wmanIfCmnClasifierDstIpAddrRule  Unsigned32,
19     wmanIfCmnClasifierSrcIpPortRule  Unsigned32,
20     wmanIfCmnClasifierDstIpPortRule  Unsigned32,
21     wmanIfCmnClasifierDstMacAdrRule  Unsigned32,
22     wmanIfCmnClasifierSrcMacAdrRule  Unsigned32,
23     wmanIfCmnClasifierEnetProtclType INTEGER,
24     wmanIfCmnClasifierEnetProtcl     Integer32,
25     wmanIfCmnClasifierUserPriLow     Integer32,
26     wmanIfCmnClasifierUserPriHigh    Integer32,
27     wmanIfCmnClasifierVlanId         Integer32,
28     wmanIfCmnClasifierState          INTEGER,
29     wmanIfCmnClasifierPkts           Counter64,
30     wmanIfCmnClasifierBitMap         WmanIfClassifierBitMap}
31
32 wmanIfCmnClasifierIndex OBJECT-TYPE
33     SYNTAX      Unsigned32 (1..4294967295)
34     MAX-ACCESS  not-accessible
35     STATUS      current
36     DESCRIPTION
37         "An index is assigned to each classifier in the classifiers
38         table"
39     ::= { wmanIfCmnClasifierRuleEntry 1 }
40
41 wmanIfCmnClasifierPriority OBJECT-TYPE
42     SYNTAX      INTEGER (0..255)
43     MAX-ACCESS  read-only
44     STATUS      current
45     DESCRIPTION
46         "The value specifies the order of evaluation of the
47         classifiers. The higher the value the higher the
48         priority. The value of 0 is used as default in
49         provisioned service flows classifiers. The default
50         value of 64 is used for dynamic service flow classifiers.
51         If the referenced parameter is not present in a classifier,
52         this object reports the default value as defined above"
53     REFERENCE
54         "Section 11.13.19.3.4.1 in IEEE 802.16-2004"

```

```
1      DEFVAL      { 0 }
2      ::= { wmanIfCmnClasifierRuleEntry 2 }
3
4 wmanIfCmnClasifierIpTosLow OBJECT-TYPE
5     SYNTAX      INTEGER (0 .. 255)
6     MAX-ACCESS  read-only
7     STATUS      current
8     DESCRIPTION
9         "The low value of a range of TOS byte values. If the
10        referenced parameter is not present in a classifier, this
11        object reports the value of 0."
12     REFERENCE
13         "Section 11.13.19.3.4.2 in IEEE 802.16-2004"
14     ::= { wmanIfCmnClasifierRuleEntry 3 }
15
16 wmanIfCmnClasifierIpTosHigh OBJECT-TYPE
17     SYNTAX      INTEGER (0 .. 255)
18     MAX-ACCESS  read-only
19     STATUS      current
20     DESCRIPTION
21         "The 8-bit high value of a range of TOS byte values.
22         If the referenced parameter is not present in a classifier,
23         this object reports the value of 0."
24     REFERENCE
25         "Section 11.13.19.3.4.2 in IEEE 802.16-2004"
26     ::= { wmanIfCmnClasifierRuleEntry 4 }
27
28 wmanIfCmnClasifierIpTosMask OBJECT-TYPE
29     SYNTAX      INTEGER (0 .. 255)
30     MAX-ACCESS  read-only
31     STATUS      current
32     DESCRIPTION
33         "The mask value is bitwise ANDed with TOS byte in an IP
34         packet and this value is used check range checking of
35         TosLow and TosHigh. If the referenced parameter is not
36         present in a classifier, this object reports the value
37         of 0."
38     REFERENCE
39         "Section 11.13.19.3.4.2 in IEEE 802.16-2004"
40     ::= { wmanIfCmnClasifierRuleEntry 5 }
41
42 wmanIfCmnClasifierIpProtocl OBJECT-TYPE
43     SYNTAX      Integer32 (0..255)
44     MAX-ACCESS  read-only
45     STATUS      current
46     DESCRIPTION
47         "This object indicates the value of the IP Protocol field
48         required for IP packets to match this rule. If the
49         referenced parameter is not present in a classifier, this
50         object reports the value of 0."
51     REFERENCE
52         "Section 11.13.19.3.4.3 in IEEE 802.16-2004"
53     ::= { wmanIfCmnClasifierRuleEntry 6 }
54
```



```
1 wmanIfCmnClasifierIpAddrType OBJECT-TYPE
2     SYNTAX      InetAddressType
3     MAX-ACCESS  read-only
4     STATUS      current
5     DESCRIPTION
6         "The type of the internet address for
7         wmanIfCmnClasifierSrcIpAddr,
8         wmanIfCmnClasifierSrcIpMask,
9         wmanIfCmnClasifierDestIpAddr, and
10        wmanIfCmnClasifierDestIpMask.
11        If the referenced parameter is not present in a classifier,
12        this object reports the value of ipv4(1)."
```

REFERENCE

```
13         "Section 11.13.19.3.4.4 in IEEE 802.16-2004"
14 ::= { wmanIfCmnClasifierRuleEntry 7 }
```

```
16
17 wmanIfCmnClasifierSrcIpAddrRule OBJECT-TYPE
18     SYNTAX      Unsigned32
19     MAX-ACCESS  read-create
20     STATUS      current
21     DESCRIPTION
22         "This parameter specifies a list of IP source address and
23         its corresponding address mask. This parameter should be
24         set to NULL, if the IP source address rule is not to be
25         used in the classifier."
```

REFERENCE

```
26         "Section 11.13.19.3.4.4 in IEEE 802.16-2004"
27 ::= { wmanIfCmnClasifierRuleEntry 8 }
```

```
29
30 wmanIfCmnClasifierDstIpAddrRule OBJECT-TYPE
31     SYNTAX      Unsigned32
32     MAX-ACCESS  read-create
33     STATUS      current
34     DESCRIPTION
35         "This parameter specifies a list of IP destination address
36         and its corresponding address mask. This parameter should
37         be set to NULL, if the IP destination address rule is not
38         to be used in the classifier."
```

REFERENCE

```
39         "Section 11.13.19.3.4.5 in IEEE 802.16-2004"
40 ::= { wmanIfCmnClasifierRuleEntry 9 }
```

```
42
43 wmanIfCmnClasifierSrcIpPortRule OBJECT-TYPE
44     SYNTAX      Unsigned32
45     MAX-ACCESS  read-create
46     STATUS      current
47     DESCRIPTION
48         "This object specifies the inclusive range of TCP/UDP
49         source port numbers to which a packet is compared. This
50         parameter should be set to NULL, if the source port rule
51         is not to be used in the classifier."
```

REFERENCE

```
52         "Section 11.13.19.3.4.6 in IEEE 802.16-2004"
53 ::= { wmanIfCmnClasifierRuleEntry 10 }
```

```
54
```

```

1
2 wmanIfCmnClasifierDstIpPortRule OBJECT-TYPE
3     SYNTAX      Unsigned32
4     MAX-ACCESS  read-create
5     STATUS      current
6     DESCRIPTION
7         "This parameter specifies inclusive range of TCP/UDP
8         destination port numbers to which a packet is compared.
9         This parameter should be set to NULL, if the destination
10        port rule is not to be used in the classifier."
11    REFERENCE
12        "Section 11.13.19.3.4.7 in IEEE 802.16-2004"
13    ::= { wmanIfCmnClasifierRuleEntry 11 }
14
15 wmanIfCmnClasifierDstMacAdrRule OBJECT-TYPE
16     SYNTAX      Unsigned32
17     MAX-ACCESS  read-create
18     STATUS      current
19     DESCRIPTION
20         "This parameter specifies a list of destination MAC address
21         and its corresponding address mask. This parameter should
22         be set to NULL, if the destination MAC address rule is
23         not to be used in the classifier."
24    REFERENCE
25        "Section 11.13.19.3.4.8 in IEEE 802.16-2004"
26    ::= { wmanIfCmnClasifierRuleEntry 12 }
27
28 wmanIfCmnClasifierSrcMacAdrRule OBJECT-TYPE
29     SYNTAX      Unsigned32
30     MAX-ACCESS  read-create
31     STATUS      current
32     DESCRIPTION
33         "This parameter specifies a list of source MAC address
34         and its corresponding address mask. This parameter should
35         be set to NULL, if the source MAC address rule is not to
36         be used in
37         the classifier."
38    REFERENCE
39        "Section 11.13.19.3.4.9 in IEEE 802.16-2004"
40    ::= { wmanIfCmnClasifierRuleEntry 13 }
41
42 wmanIfCmnClasifierEnetProtclType OBJECT-TYPE
43     SYNTAX      INTEGER {none(0),
44                    ethertype(1),
45                    dsap(2)}
46     MAX-ACCESS  read-only
47     STATUS      current
48     DESCRIPTION
49         "This object indicates the format of the layer 3 protocol
50         id in the Ethernet packet. A value of none(0) means that
51         the rule does not use the layer 3 protocol type as a
52         matching criteria. A value of ethertype(1) means that the
53         rule applies only to frames which contains an EtherType
54         value. Ethertype values are contained in packets using

```

```
1         the Dec-Intel-Xerox (DIX) encapsulation or the RFC1042
2         Sub-Network Access Protocol (SNAP) encapsulation formats.
3         A value of dsap(2) means that the rule applies only to
4         frames using the IEEE802.3 encapsulation format with a
5         Destination Service Access Point (DSAP) other than 0xAA
6         (which is reserved for SNAP). If the Ethernet frame
7         contains an 802.1P/Q Tag header (i.e. EtherType 0x8100),
8         this object applies to the embedded EtherType field within
9         the 802.1P/Q header. If the referenced parameter is not
10        present in a classifier, this object reports the value of
11        0."
12    REFERENCE
13        "Section 11.13.19.3.4.10 in IEEE 802.16-2004"
14    ::= { wmanIfCmnClasifierRuleEntry 15 }
15
16 wmanIfCmnClasifierEnetProtcl OBJECT-TYPE
17     SYNTAX      Integer32 (0..65535)
18     MAX-ACCESS  read-only
19     STATUS      current
20     DESCRIPTION
21         "If wmanIfCmnClasifierEnetProtclTyp is none(0),
22         this object is ignored when considering whether a packet
23         matches the current rule.
24         If wmanIfCmnClasifierEnetProtclTyp is ethertype(1),
25         this object gives the 16-bit value of the EtherType that
26         the packet must match in order to match the rule.
27         If wmanIfCmnClasifierEnetProtclType is dsap(2), the
28         lower 8 bits of this object's value must match the DSAP
29         byte of the packet in order to match the rule.
30         If the Ethernet frame contains an 802.1P/Q Tag header
31         (i.e. EtherType 0x8100), this object applies to the
32         embedded EtherType field within the 802.1P/Q header.
33         If the referenced parameter is not present in the
34         classifier, the value of this object is reported as 0."
35     REFERENCE
36         "Section 11.13.19.3.4.10 in IEEE 802.16-2004"
37     ::= { wmanIfCmnClasifierRuleEntry 16 }
38
39 wmanIfCmnClasifierUserPriLow OBJECT-TYPE
40     SYNTAX      Integer32 (0..7)
41     MAX-ACCESS  read-only
42     STATUS      current
43     DESCRIPTION
44         "This object applies only to Ethernet frames using the
45         802.1P/Q tag header (indicated with EtherType 0x8100).
46         Such frames include a 16-bit Tag that contains a 3 bit
47         Priority field and a 12 bit VLAN number.
48         Tagged Ethernet packets must have a 3-bit Priority field
49         within the range of wmanIfCmnClasifierPriLow and
50         wmanIfCmnClasifierPriHigh in order to match this
51         rule.
52         If the referenced parameter is not present in the
53         classifier, the value of this object is reported as 0."
54     REFERENCE
```

```

1         "Section 11.13.19.3.4.11 in IEEE 802.16-2004"
2         ::= { wmanIfCmnClassifierRuleEntry 17 }
3
4 wmanIfCmnClassifierUserPriHigh OBJECT-TYPE
5     SYNTAX      Integer32 (0..7)
6     MAX-ACCESS  read-only
7     STATUS      current
8     DESCRIPTION
9         "This object applies only to Ethernet frames using the
10        802.1P/Q tag header (indicated with EtherType 0x8100).
11        Such frames include a 16-bit Tag that contains a 3 bit
12        Priority field and a 12 bit VLAN number.
13        Tagged Ethernet packets must have a 3-bit Priority
14        field within the range of wmanIfCmnClassifierPriLow
15        and wmanIfCmnClassifierPriHigh in order to match
16        this rule.
17        If the referenced parameter is not present in the
18        classifier, the value of this object is reported as 7."
19     REFERENCE
20         "Section 11.13.19.3.4.11 in IEEE 802.16-2004"
21     ::= { wmanIfCmnClassifierRuleEntry 18 }
22
23 wmanIfCmnClassifierVlanId OBJECT-TYPE
24     SYNTAX      Integer32 (0..4095)
25     MAX-ACCESS  read-only
26     STATUS      current
27     DESCRIPTION
28         "This object applies only to Ethernet frames using the
29        802.1P/Q tag header.
30        If this object's value is nonzero, tagged packets must
31        have a VLAN Identifier that matches the value in order
32        to match the rule.
33        Only the least significant 12 bits of this object's
34        value are valid.
35        If the referenced parameter is not present in the
36        classifier, the value of this object is reported as 0."
37     REFERENCE
38         "Section 11.13.19.3.4.12 in IEEE 802.16-2004"
39     ::= { wmanIfCmnClassifierRuleEntry 19 }
40
41 wmanIfCmnClassifierState OBJECT-TYPE
42     SYNTAX      INTEGER {active(1),
43                        inactive(2)}
44     MAX-ACCESS  read-only
45     STATUS      current
46     DESCRIPTION
47         "This object indicates whether or not the classifier is
48        enabled to classify packets to a Service Flow.
49        If the referenced parameter is not present in the
50        classifier, the value of this object is reported
51        as active(1)."
```

```

52     ::= { wmanIfCmnClassifierRuleEntry 20 }
53
54 wmanIfCmnClassifierPkts OBJECT-TYPE
```

```

1      SYNTAX      Counter64
2      MAX-ACCESS  read-only
3      STATUS      current
4      DESCRIPTION
5          "This object counts the number of packets that have
6          been classified using this entry."
7      ::= { wmanIfCmnClasifierRuleEntry 21 }
8
9  wmanIfCmnClasifierBitMap OBJECT-TYPE
10     SYNTAX      WmanIfClassifierBitMap
11     MAX-ACCESS  read-only
12     STATUS      current
13     DESCRIPTION
14         "This object indicates which parameter encodings were
15         actually present in the entry. A bit set to '1' indicates
16         the corresponding classifier encoding is present, and '0'
17         means otherwise"
18     ::= { wmanIfCmnClasifierRuleEntry 22 }
19
20 wmanIfCmnClasifierSrcIpAdrTable OBJECT-TYPE
21     SYNTAX      SEQUENCE OF WmanIfCmnClasifierSrcIpAdrEntry
22     MAX-ACCESS  not-accessible
23     STATUS      current
24     DESCRIPTION
25         "This table contains list of IP source addresses and their
26         corresponding address masks."
27     REFERENCE
28         "Section 11.13.19.3.4.4 in IEEE 802.16-2004"
29     ::= { wmanIfCmnPacketCs 2 }
30
31 wmanIfCmnClasifierSrcIpAdrEntry OBJECT-TYPE
32     SYNTAX      WmanIfCmnClasifierSrcIpAdrEntry
33     MAX-ACCESS  not-accessible
34     STATUS      current
35     DESCRIPTION
36         "This table provides one row for each source IP
37         address and it's corresponding address mask, and is
38         indexed by wmanIfCmnSrcIpAdrRuleIndex and
39         wmanIfCmnSrcIpAdrListIndex."
40     INDEX { wmanIfCmnSrcIpAdrRuleIndex,
41            wmanIfCmnSrcIpAdrListIndex }
42     ::= { wmanIfCmnClasifierSrcIpAdrTable 1 }
43
44 WmanIfCmnClasifierSrcIpAdrEntry ::= SEQUENCE {
45     wmanIfCmnSrcIpAdrRuleIndex      Unsigned32,
46     wmanIfCmnSrcIpAdrListIndex      Unsigned32,
47     wmanIfCmnClasifierSrcIpAddr     InetAddress,
48     wmanIfCmnClasifierSrcIpMask     InetAddress}
49
50 wmanIfCmnSrcIpAdrRuleIndex OBJECT-TYPE
51     SYNTAX      Unsigned32 (1..4294967295)
52     MAX-ACCESS  not-accessible
53     STATUS      current
54     DESCRIPTION

```

```
1           "This index identifies a list of source IP address and
2           it's corresponding address mask. This index maps to
3           wmanIfCmnClasifierSrcIpAddrRule in
4           wmanIfCmnClasifierRuleTable"
5       ::= { wmanIfCmnClasifierSrcIpAdrEntry 1 }
6
7 wmanIfCmnSrcIpAdrListIndex OBJECT-TYPE
8     SYNTAX      Unsigned32 (1..4294967295)
9     MAX-ACCESS  not-accessible
10    STATUS      current
11    DESCRIPTION
12        "An index is assigned to an entry in the list."
13    ::= { wmanIfCmnClasifierSrcIpAdrEntry 2 }
14
15 wmanIfCmnClasifierSrcIpAddr OBJECT-TYPE
16     SYNTAX      InetAddress
17     MAX-ACCESS  read-create
18     STATUS      current
19     DESCRIPTION
20         "This object specifies the value of the IP Source Address
21         required for packets to match this rule. An IP packet
22         matches the rule when the packet ip source address bitwise
23         ANDed with the wmanIfCmnClasifierSrcIpMask value
24         equals the wmanIfCmnClasifierSrcIpAddr value.
25         If the referenced parameter is not present in a
26         classifier, this object reports the value of 0.0.0.0."
27     REFERENCE
28         "Section 11.13.19.3.4.4 in IEEE 802.16-2004"
29     ::= { wmanIfCmnClasifierSrcIpAdrEntry 3 }
30
31 wmanIfCmnClasifierSrcIpMask OBJECT-TYPE
32     SYNTAX      InetAddress
33     MAX-ACCESS  read-create
34     STATUS      current
35     DESCRIPTION
36         "This object specifies which bits of a packet's IP Source
37         Address that are compared to match this rule. An IP packet
38         matches the rule when the packet source address bitwise
39         ANDed with the
40         wmanIfCmnClasifierSrcIpMask value equals the
41         wmanIfCmnClasifierSrcIpAddr value.
42         If the referenced parameter is not present in a classifier
43         ,this object reports the value of 0.0.0.0."
44     REFERENCE
45         "Section 11.13.19.3.4.4 in IEEE 802.16-2004"
46     ::= { wmanIfCmnClasifierSrcIpAdrEntry 4 }
47
48 wmanIfCmnClasifierDstIpAdrTable OBJECT-TYPE
49     SYNTAX      SEQUENCE OF WmanIfCmnClasifierDstIpAdrEntry
50     MAX-ACCESS  not-accessible
51     STATUS      current
52     DESCRIPTION
53         "This table contains a list of IP destination address
54         and their corresponding mask."
```

```

1      REFERENCE
2          "Section 11.13.19.3.4.5 in IEEE 802.16-2004"
3      ::= { wmanIfCmnPacketCs 3 }
4
5 wmanIfCmnClasifierDstIpAdrEntry OBJECT-TYPE
6     SYNTAX      WmanIfCmnClasifierDstIpAdrEntry
7     MAX-ACCESS  not-accessible
8     STATUS      current
9     DESCRIPTION
10        "This table provides one row for each destination IP
11        address and it's corresponding address mask, and is
12        indexed by wmanIfCmnDstIpAdrRuleIndex and
13        wmanIfCmnDstIpAdrListIndex."
14     INDEX { wmanIfCmnDstIpAdrRuleIndex,
15            wmanIfCmnDstIpAdrListIndex }
16     ::= { wmanIfCmnClasifierDstIpAdrTable 1 }
17
18 WmanIfCmnClasifierDstIpAdrEntry ::= SEQUENCE {
19     wmanIfCmnDstIpAdrRuleIndex      Unsigned32,
20     wmanIfCmnDstIpAdrListIndex      Unsigned32,
21     wmanIfCmnClasifierDestIpAddr    InetAddress,
22     wmanIfCmnClasifierDestIpMask    InetAddress}
23
24 wmanIfCmnDstIpAdrRuleIndex OBJECT-TYPE
25     SYNTAX      Unsigned32 (1..4294967295)
26     MAX-ACCESS  not-accessible
27     STATUS      current
28     DESCRIPTION
29        "This index identifies a list of destination IP address
30        and it's corresponding address mask. This index maps to
31        wmanIfCmnClasifierDstIpAddrRule in
32        wmanIfCmnClasifierRuleTable"
33     ::= { wmanIfCmnClasifierDstIpAdrEntry 1 }
34
35 wmanIfCmnDstIpAdrListIndex OBJECT-TYPE
36     SYNTAX      Unsigned32 (1..4294967295)
37     MAX-ACCESS  not-accessible
38     STATUS      current
39     DESCRIPTION
40        "An index is assigned to an entry in the list."
41     ::= { wmanIfCmnClasifierDstIpAdrEntry 2 }
42
43 wmanIfCmnClasifierDestIpAddr OBJECT-TYPE
44     SYNTAX      InetAddress
45     MAX-ACCESS  read-create
46     STATUS      current
47     DESCRIPTION
48        "This object specifies the value of the IP Destination
49        Address required for packets to match this rule. An IP
50        packet matches the rule when the packet IP destination
51        address bitwise ANDed with the
52        wmanIfCmnClasifierDestIpMask value equals the
53        wmanIfCmnClasifierDestIpAddr value.
54        If the referenced parameter is not present in a

```

```

1         classifier, this object reports the value of 0.0.0.0."
2     REFERENCE
3         "Section 11.13.19.3.4.5 in IEEE 802.16-2004"
4     ::= { wmanIfCmnClasifierDstIpAdrEntry 3 }
5
6 wmanIfCmnClasifierDestIpMask OBJECT-TYPE
7     SYNTAX      InetAddress
8     MAX-ACCESS  read-create
9     STATUS      current
10    DESCRIPTION
11        "This object specifies which bits of a packet's IP
12         Destination Address that are compared to match this rule.
13         An IP packet matches the rule when the packet destination
14         address bitwise ANDed with the
15         wmanIfCmnClasifierDestIpMask value equals the
16         wmanIfCmnClasifierDestIpAddr value.
17         If the referenced parameter is not present in a classifier
18         , this object reports the value of 0.0.0.0."
19    REFERENCE
20        "Section 11.13.19.3.4.5 in IEEE 802.16-2004"
21    ::= { wmanIfCmnClasifierDstIpAdrEntry 4 }
22
23 wmanIfCmnClasifierSrcIpPortTable OBJECT-TYPE
24     SYNTAX      SEQUENCE OF WmanIfCmnClasifierSrcIpPortEntry
25     MAX-ACCESS  not-accessible
26     STATUS      current
27     DESCRIPTION
28        "This table contains a list of nonoverlapping ranges
29         of protocol source port values. Classifier rules with
30         port numbers are protocol specific."
31    REFERENCE
32        "Section 11.13.19.3.4.6 in IEEE 802.16-2004"
33    ::= { wmanIfCmnPacketCs 4 }
34
35 wmanIfCmnClasifierSrcIpPortEntry OBJECT-TYPE
36     SYNTAX      WmanIfCmnClasifierSrcIpPortEntry
37     MAX-ACCESS  not-accessible
38     STATUS      current
39     DESCRIPTION
40        "This table provides one row for each range of source ports
41         identified by wmanIfCmnClasifierSrcIpPortSta and
42         wmanIfCmnClasifierSrcIpPortEnd, and is indexed by
43         wmanIfCmnSrcIpPortRuleIndex and
44         wmanIfCmnSrcIpPortListIndex."
45     INDEX { wmanIfCmnSrcIpPortRuleIndex,
46            wmanIfCmnSrcIpPortListIndex }
47     ::= { wmanIfCmnClasifierSrcIpPortTable 1 }
48
49 WmanIfCmnClasifierSrcIpPortEntry ::= SEQUENCE {
50     wmanIfCmnSrcIpPortRuleIndex      Unsigned32,
51     wmanIfCmnSrcIpPortListIndex      Unsigned32,
52     wmanIfCmnClasifierSrcIpPortStart Integer32,
53     wmanIfCmnClasifierSrcIpPortEnd   Integer32}
54

```



```

1 wmanIfCmnSrcIpPortRuleIndex OBJECT-TYPE
2     SYNTAX      Unsigned32 (1..4294967295)
3     MAX-ACCESS  not-accessible
4     STATUS      current
5     DESCRIPTION
6         "This index identifies a list of nonoverlapping ranges
7         of protocol source port values. This index maps to
8         wmanIfCmnClasifierSrcIpPortRule in
9         wmanIfCmnClasifierRuleTable"
10    ::= { wmanIfCmnClasifierSrcIpPortEntry 1 }
11
12 wmanIfCmnSrcIpPortListIndex OBJECT-TYPE
13     SYNTAX      Unsigned32 (1..4294967295)
14     MAX-ACCESS  not-accessible
15     STATUS      current
16     DESCRIPTION
17         "An index is assigned to an entry in the list."
18    ::= { wmanIfCmnClasifierSrcIpPortEntry 2 }
19
20 wmanIfCmnClasifierSrcIpPortStart OBJECT-TYPE
21     SYNTAX      Integer32 (0..65535)
22     MAX-ACCESS  read-create
23     STATUS      current
24     DESCRIPTION
25         "This object specifies the low end inclusive range of
26         TCP/UDP source port numbers to which a packet is compared.
27         This object is irrelevant for non-TCP/UDP IP packets.
28         If the referenced parameter is not present in a
29         classifier, this object reports the value of 0."
30     REFERENCE
31         "Section 11.13.19.3.4.6 in IEEE 802.16-2004"
32    ::= { wmanIfCmnClasifierSrcIpPortEntry 3 }
33
34 wmanIfCmnClasifierSrcIpPortEnd OBJECT-TYPE
35     SYNTAX      Integer32 (0..65535)
36     MAX-ACCESS  read-create
37     STATUS      current
38     DESCRIPTION
39         "This object specifies the high end inclusive range of
40         TCP/UDP source port numbers to which a packet is compared.
41         This object is irrelevant for non-TCP/UDP IP packets.
42         If the referenced parameter is not present in a classifier
43         , this object reports the value of 65535."
44     REFERENCE
45         "Section 11.13.19.3.4.6 in IEEE 802.16-2004"
46    ::= { wmanIfCmnClasifierSrcIpPortEntry 4 }
47
48 wmanIfCmnClasifierDstIpPortTable OBJECT-TYPE
49     SYNTAX      SEQUENCE OF WmanIfCmnClasifierDstIpPortEntry
50     MAX-ACCESS  not-accessible
51     STATUS      current
52     DESCRIPTION
53         "This table contains a list of nonoverlapping ranges of
54         protocol destination port values. Classifier rules with

```

```

1         port numbers are protocol specific;."
2     REFERENCE
3         "Section 11.13.19.3.4.7 in IEEE 802.16-2004"
4     ::= { wmanIfCmnPacketCs 5 }
5
6 wmanIfCmnClasifierDstIpPortEntry OBJECT-TYPE
7     SYNTAX      WmanIfCmnClasifierDstIpPortEntry
8     MAX-ACCESS  not-accessible
9     STATUS      current
10    DESCRIPTION
11        "This table provides one row for each range of destination
12         identified by wmanIfCmnClasifierDstIpPortSta and
13         wmanIfCmnClasifierDstIpPortEnd, and is indexed by
14         wmanIfCmnDstIpPortRuleIndex and wmanIfCmnDstIpPortListIndex."
15    INDEX { wmanIfCmnDstIpPortRuleIndex,
16            wmanIfCmnDstIpPortListIndex }
17    ::= { wmanIfCmnClasifierDstIpPortTable 1 }
18
19 WmanIfCmnClasifierDstIpPortEntry ::= SEQUENCE {
20     wmanIfCmnDstIpPortRuleIndex      Unsigned32,
21     wmanIfCmnDstIpPortListIndex      Unsigned32,
22     wmanIfCmnClasifierDstIpPortStart Integer32,
23     wmanIfCmnClasifierDstIpPortEnd   Integer32}
24
25 wmanIfCmnDstIpPortRuleIndex OBJECT-TYPE
26     SYNTAX      Unsigned32 (1..4294967295)
27     MAX-ACCESS  not-accessible
28     STATUS      current
29     DESCRIPTION
30        "This index identifies a list of nonoverlapping ranges
31         of protocol destination port values. This index maps to
32         wmanIfCmnClasifierDstIpPortRule in
33         wmanIfCmnClasifierRuleTable"
34     ::= { wmanIfCmnClasifierDstIpPortEntry 1 }
35
36 wmanIfCmnDstIpPortListIndex OBJECT-TYPE
37     SYNTAX      Unsigned32 (1..4294967295)
38     MAX-ACCESS  not-accessible
39     STATUS      current
40     DESCRIPTION
41        "An index is assigned to an entry in the list."
42     ::= { wmanIfCmnClasifierDstIpPortEntry 2 }
43
44 wmanIfCmnClasifierDstIpPortStart OBJECT-TYPE
45     SYNTAX      Integer32 (0..65535)
46     MAX-ACCESS  read-create
47     STATUS      current
48     DESCRIPTION
49        "This object specifies the low end inclusive range of
50         TCP/UDP destination port numbers to which a packet is
51         compared. If the referenced parameter is not present
52         in a classifier, this object reports the value of 0."
53     REFERENCE
54        "Section 11.13.19.3.4.7 in IEEE 802.16-2004"

```

```

1      ::= { wmanIfCmnClasifierDstIpPortEntry 3 }
2
3 wmanIfCmnClasifierDstIpPortEnd OBJECT-TYPE
4     SYNTAX      Integer32 (0..65535)
5     MAX-ACCESS  read-create
6     STATUS      current
7     DESCRIPTION
8         "This object specifies the high end inclusive range of
9         TCP/UDP destination port numbers to which a packet is
10        compared. If the referenced parameter is not present
11        in a classifier, this object reports the value of
12        65535."
13    REFERENCE
14        "Section 11.13.19.3.4.7 in IEEE 802.16-2004"
15    ::= { wmanIfCmnClasifierDstIpPortEntry 4 }
16
17 wmanIfCmnClasifierDstMacAdrTable OBJECT-TYPE
18     SYNTAX      SEQUENCE OF WmanIfCmnClasifierDstMacAdrEntry
19     MAX-ACCESS  not-accessible
20     STATUS      current
21     DESCRIPTION
22         "This table contains a list of MAC destination addresses
23         and their corresponding address masks."
24     REFERENCE
25         "Section 11.13.19.3.4.8 in IEEE 802.16-2004"
26     ::= { wmanIfCmnPacketCs 6 }
27
28 wmanIfCmnClasifierDstMacAdrEntry OBJECT-TYPE
29     SYNTAX      WmanIfCmnClasifierDstMacAdrEntry
30     MAX-ACCESS  not-accessible
31     STATUS      current
32     DESCRIPTION
33         "This table provides one row for each destination MAC
34         address and it's corresponding address mask, and is
35         indexed by wmanIfCmnDstMacAdrRuleIndex and
36         wmanIfCmnDstMacAdrListIndex."
37     INDEX { wmanIfCmnDstMacAdrRuleIndex,
38            wmanIfCmnDstMacAdrListIndex }
39     ::= { wmanIfCmnClasifierDstMacAdrTable 1 }
40
41 WmanIfCmnClasifierDstMacAdrEntry ::= SEQUENCE {
42     wmanIfCmnDstMacAdrRuleIndex      Unsigned32,
43     wmanIfCmnDstMacAdrListIndex      Unsigned32,
44     wmanIfCmnClasifierDestMacAddr    MacAddress,
45     wmanIfCmnClasifierDestMacMask    MacAddress}
46
47 wmanIfCmnDstMacAdrRuleIndex OBJECT-TYPE
48     SYNTAX      Unsigned32 (1..4294967295)
49     MAX-ACCESS  not-accessible
50     STATUS      current
51     DESCRIPTION
52         "This index identifies a list of destination MAC address
53         and it's corresponding address mask. This index maps to
54         wmanIfCmnClasifierDstMacAdrRule in

```

```

1         wmanIfCmnClassifierRuleTable"
2         ::= { wmanIfCmnClassifierDstMacAdrEntry 1 }
3
4 wmanIfCmnDstMacAdrListIndex OBJECT-TYPE
5     SYNTAX      Unsigned32 (1..4294967295)
6     MAX-ACCESS  not-accessible
7     STATUS      current
8     DESCRIPTION
9         "An index is assigned to an entry in the list."
10        ::= { wmanIfCmnClassifierDstMacAdrEntry 2 }
11
12 wmanIfCmnClassifierDestMacAddr OBJECT-TYPE
13     SYNTAX      MacAddress
14     MAX-ACCESS  read-create
15     STATUS      current
16     DESCRIPTION
17         "An Ethernet packet matches an entry when its destination
18         MAC address bitwise ANDed with
19         wmanIfCmnClassifierDestMacMask equals the value of
20         wmanIfCmnClassifierDestMacAddr. If the referenced
21         parameter is not present in a classifier, this object
22         reports the value of '000000000000'H."
23     REFERENCE
24         "Section 11.13.19.3.4.8 in IEEE 802.16-2004"
25     ::= { wmanIfCmnClassifierDstMacAdrEntry 3 }
26
27 wmanIfCmnClassifierDestMacMask OBJECT-TYPE
28     SYNTAX      MacAddress
29     MAX-ACCESS  read-create
30     STATUS      current
31     DESCRIPTION
32         "An Ethernet packet matches an entry when its destination
33         MAC address bitwise ANDed with
34         wmanIfCmnClassifierDestMacMask equals the value of
35         wmanIfCmnClassifierDestMacAddr. If the referenced
36         parameter is not present in a classifier, this object
37         reports the value of '000000000000'H."
38     REFERENCE
39         "Section 11.13.19.3.4.8 in IEEE 802.16-2004"
40     ::= { wmanIfCmnClassifierDstMacAdrEntry 4 }
41
42 wmanIfCmnClassifierSrcMacAdrTable OBJECT-TYPE
43     SYNTAX      SEQUENCE OF WmanIfCmnClassifierSrcMacAdrEntry
44     MAX-ACCESS  not-accessible
45     STATUS      current
46     DESCRIPTION
47         "This table contains a list of MAC source addresses
48         and their corresponding address masks."
49     REFERENCE
50         "Section 11.13.19.3.4.9 in IEEE 802.16-2004"
51     ::= { wmanIfCmnPacketCs 7 }
52
53 wmanIfCmnClassifierSrcMacAdrEntry OBJECT-TYPE
54     SYNTAX      WmanIfCmnClassifierSrcMacAdrEntry

```

```

1      MAX-ACCESS    not-accessible
2      STATUS       current
3      DESCRIPTION
4          "This table provides one row for each source MAC
5          address and it's corresponding address mask, and is
6          indexed by wmanIfCmnSrcMacAdrRuleIndex and
7          wmanIfCmnSrcMacAdrListIndex."
8      INDEX { wmanIfCmnSrcMacAdrRuleIndex,
9              wmanIfCmnSrcMacAdrListIndex }
10     ::= { wmanIfCmnClassifierSrcMacAdrTable 1 }
11
12     WmanIfCmnClassifierSrcMacAdrEntry ::= SEQUENCE {
13         wmanIfCmnSrcMacAdrRuleIndex      Unsigned32,
14         wmanIfCmnSrcMacAdrListIndex      Unsigned32,
15         wmanIfCmnClassifierSrcMacAddr    MacAddress,
16         wmanIfCmnClassifierSrcMacMask    MacAddress}
17
18     wmanIfCmnSrcMacAdrRuleIndex OBJECT-TYPE
19         SYNTAX      Unsigned32 (1..4294967295)
20         MAX-ACCESS  not-accessible
21         STATUS      current
22         DESCRIPTION
23             "An index identifies a list of source MAC address
24             and it's corresponding address mask. This index maps to
25             wmanIfCmnClassifierSrcMacAdrRule in
26             wmanIfCmnClassifierRuleTable"
27         ::= { wmanIfCmnClassifierSrcMacAdrEntry 1 }
28
29     wmanIfCmnSrcMacAdrListIndex OBJECT-TYPE
30         SYNTAX      Unsigned32 (1..4294967295)
31         MAX-ACCESS  not-accessible
32         STATUS      current
33         DESCRIPTION
34             "An index is assigned to an entry in the list."
35         ::= { wmanIfCmnClassifierSrcMacAdrEntry 2 }
36
37     wmanIfCmnClassifierSrcMacAddr OBJECT-TYPE
38         SYNTAX      MacAddress
39         MAX-ACCESS  read-create
40         STATUS      current
41         DESCRIPTION
42             "An Ethernet packet matches this entry when its source
43             MAC address bitwise ANDed with
44             wmanIfCmnClassifierSrcMacMask equals the value
45             of wmanIfCmnClassifierSrcMacAddr. If the
46             referenced parameter is not present in a classifier,
47             this object reports the value of '000000000000'H."
48         REFERENCE
49             "Section 11.13.19.3.4.9 in IEEE 802.16-2004"
50         ::= { wmanIfCmnClassifierSrcMacAdrEntry 3 }
51
52     wmanIfCmnClassifierSrcMacMask OBJECT-TYPE
53         SYNTAX      MacAddress
54         MAX-ACCESS  read-create

```

```
1      STATUS      current
2      DESCRIPTION
3          "An Ethernet packet matches an entry when its destination
4          MAC address bitwise ANDed with
5          wmanIfCmnClassifierSrcMacMask equals the value of
6          wmanIfCmnClassifierSrcMacAddr. If the referenced
7          parameter is not present in a classifier, this object
8          reports the value of '000000000000'H."
9      REFERENCE
10         "Section 11.13.19.3.4.9 in IEEE 802.16-2004"
11         ::= { wmanIfCmnClassifierSrcMacAdrEntry 4 }
12
13
14
```

