

# IEEE 802.1Qbg Clause 17 Comment

## 17. Management Information Base (MIB)

*Change table 17-1 to include the following new row:*

IEEE8021-EVBB MIB	17.7.15	802.1Qbg	5.19, 5.20	Initial version in IEEE Std 802.1Qbg
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*Insert new subclause 17.2.15, renumbering existing subclauses as necessary, as shown:*

### 17.2.15 Structure of the IEEE8021-EVBB MIB

The IEEE8021-EVBB MIB provides objects to configure and manage and EVB Bridge system.

Objects in this MIB module are arranged into subtrees. Each subtree is organized as a set of related objects. Where appropriate, the corresponding Clause 12 management reference is also included.

Table 17-21 indicates the structure of the IEEE8021-EVBB MIB module.

**Table 17-21—EVBB MIB structure and object cross reference**

MIB Table	MIB object	References
	<i>ieee8021BridgeEvbbNotifications subtree</i>	
	<i>ieee8021BridgeEvbbObjects subtree</i>	
	<i>ieee8021BridgeEvbbConformance subtree</i>	

*Insert new subclause 17.3.15, renumbering existing subclauses as necessary, as shown:*

### 17.3.15 Relationship of the IEEE8021-EVBB MIB to other MIB modules

The IEEE8021-EVBB MIB provides objects that extend the core management functionality of a Bridge, as defined by the IEEE8021-BRIDGE MIB (17.7.2), in order to support the management functionality needed for Edge Virtual Bridging (5.19,5.20), as defined in Clause 40, 41, 42, 43 and 44. As support of the objects defined in the IEEE8021-EVBB MIB also requires support of the IEEE8021-TC-MIB and IEEE8021-BRIDGE-MIB, the provisions of 17.3.2 apply to implementations claiming support of the IEEE8021-EVBB MIB.

*Insert new subclause 17.4.15, renumbering existing subclauses as necessary, as shown:*

### 17.4.15 Security considerations of the IEEE8021-EVBB MIB

The purpose of EVB is to co-ordinate virtual bridging components within a server with datacenter network. In this environment the server which contains EVB edge relay components and the EVB Bridge which is part of the datacenter network may be under different management authorities. Access to the objects within the IEEE8021-EVBB MIB module by the EVB server and objects in the EVBS MIB by the EVB Bridge may therefore need to be restricted.

Access to the objects within the IEEE8021-EVBB MIB module, whether they have MAX-ACCESS of read-write, read-create, or read-only, may reveal sensitive information in some network environments. Very serious health and

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safety situations could arise if EVBB was involved in configuring network resources for an emergency public safety announcement and the EVBB behavior of the bridged network was allowed to be modified unexpectedly.

With these considerations in mind it is thus important to control all types of access (including GET and/or NOTIFY) to these objects and possibly even encrypt their values when sending them over the network via SNMP.

The following tables and objects in the IEEE8021-EVBB MIB can be manipulated to interfere with the operation of the EVBB:

*Change subclause 17.5 as follows:*

## **17.5 Dynamic component and Port creation**

### **17.5.1 Overview of the dynamically created Bridge entities**

The IEEE Bridge MIBs allow for the possibility of Bridge components and Bridge Ports to be created under the control of management operations. This functionality is optional. Compliant Bridges need not support this functionality or may tie the creation of components and Ports to the insertion or extraction of system hardware. This subclause outlines the rules and table interactions used by management stations to create soft configurable dynamic components and Ports on those systems that support this functionality.

A Bridge component contains, at a minimum, a collection of Bridge Ports, a relay unit that forwards and filters frames that travel between Ports, and managed objects to control the operation of the component. Certain types of components may contain other objects. These will be addressed later in this subclause in component specific text.

Bridge components are the Owners of Bridge Ports, so components must be created before components can be populated with Ports.

The tables that are indexed by a single component ID index are as follows:

ieee8021BridgeBaseTable  
ieee8021QBridgeTable  
ieee8021QBridgeNextFreeLocalVlanTable  
ieee8021QBridgeLearningConstraintDefaultTable  
ieee8021CistTable  
ieee8021MstConfigIdTable  
ieee8021CfmVlanTable

*Insert new subclause 17.5.2.6, renumbering existing subclauses as necessary, as shown:*

#### **17.5.2.6 C-VLAN aware edge relay component creation**

The C-VLAN aware edge relay component has no specific component creation rules.

*Insert new subclause 17.5.3.6, renumbering existing subclauses as necessary, as shown:*

#### **17.5.3.6 Port creation on C-VLAN aware edge relay components**

Creating a C-VLAN relay port on a C-VLAN aware edge relay component works the same way as creating a Port on a C-VLAN aware component (17.5.3.1) with the exception that the rules for determining the legality of the Port type are different.

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## 17.5.3.6.1 Creating CRPs

C-VLAN aware relay ports are created by performing a row-create operation on the ieee8021EvbPortTable for a C-VLAN edge relay component that is configured to act as an EVB Server. The required columns are the component ID and the Port Number to use for the newly created Port.

## 17.5.3.6.1 Creating URPs

C-VLAN aware relay ports are created by performing a row-create operation on the ieee8021EvbPortTable for a C-VLAN edge relay component that is configured to act as an EVB Server. The required columns are the component ID and the Port Number to use for the newly created Port.

***Insert new subclause 17.7.15, renumbering existing subclauses as necessary, as shown:***

## 17.7.15 Definitions of the IEEE8021-EVBB MIB module

```
IEEE8021-EVBB-MIB DEFINITIONS ::= BEGIN
```

```
-- =====  
-- MIB for IEEE 802.1Q devices  
-- =====
```

```
IMPORTS
```

```
  MODULE-IDENTITY, OBJECT-TYPE,  
  Integer32, Counter32, Counter64
```

```
  FROM SNMPv2-SMI
```

```
  MacAddress, TruthValue, TimeInterval
```

```
  FROM SNMPv2-TC
```

```
  MODULE-COMPLIANCE, OBJECT-GROUP
```

```
  FROM SNMPv2-CONF
```

```
  ieee802dot1mibs, IEEE8021PbbComponentIdentifier,
```

```
  IEEE8021BridgePortNumber
```

```
  FROM IEEE8021-TC-MIB
```

```
  VlanIndex
```

```
  FROM Q-BRIDGE-MIB
```

```
;
```

```
ieee8021BridgeEvbbMib MODULE-IDENTITY
```

```
  LAST-UPDATED "201010250000Z" -- October 25, 2010
```

```
  ORGANIZATION "IEEE 802.1 Working Group"
```

```
  CONTACT-INFO
```

```
    " WG-URL: http://grouper.ieee.org/groups/802/1/index.html
```

```
    WG-EMail: stds-802-1@ieee.org
```

```
  Contact: <TBD>
```

```
  Postal: C/O IEEE 802.1 Working Group
```

```
    IEEE Standards Association
```

```
    445 Hoes Lane
```

```
    P.O. Box 1331
```

```
    Piscataway
```

```
    NJ 08855-1331
```

```
    USA
```

```
  E-mail: STDS-802-1-L@LISTSERV.IEEE.ORG"
```

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## DESCRIPTION

"The EVB MIB module for managing devices that support Ethernet Virtual Bridging.

Unless otherwise indicated, the references in this MIB module are to IEEE Std 802.1Q-2010.

Copyright (C) IEEE.

This version of this MIB module is part of IEEE802.1Q; see the draft itself for full legal notices."

REVISION "201010250000Z" -- October 25, 2010

## DESCRIPTION

"Initial revision."

::= { ieee802dot1mibs <TBD> }

-- =====  
-- subtrees in the EVBB MIB  
-- =====

ieee8021BridgeEvbbNotifications

OBJECT IDENTIFIER ::= { ieee8021BridgeEvbbMib 0 }

ieee8021BridgeEvbbObjects

OBJECT IDENTIFIER ::= { ieee8021BridgeEvbbMib 1 }

ieee8021BridgeEvbbConformance

OBJECT IDENTIFIER ::= { ieee8021BridgeEvbbMib 2 }

--  
-- EVB Bridge managed object  
--

ieee8021BridgeEvbbConfig OBJECT IDENTIFIER ::= { ieee8021BridgeEvbbObjects 1 }

ieee8021BridgeEvbbECPACKTimer OBJECT-TYPE

SYNTAX Integer32

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"A value indicating the Bridge Proposed ECP ackTimer."

REFERENCE

"12.24.1.1.3 "

::= { ieee8021BridgeEvbbConfig 1 }

ieee8021BridgeEvbbECPMaxRetires OBJECT-TYPE

SYNTAX Integer32

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"A value indicating the Bridge ECP maxRetries. "

REFERENCE "12.24.1.1.3"

::= { ieee8021BridgeEvbbConfig 2 }

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ieee8021BridgeEvbbVDPResourceTimeout OBJECT-TYPE  
SYNTAX Integer32  
MAX-ACCESS read-write  
STATUS current  
DESCRIPTION "A value indicating the Bridge Resource VDP Timeout."

REFERENCE "12.24.1.1.3"  
::= { ieee8021BridgeEvbbConfig 3 }

ieee8021BridgeEvbbVDPProposedKeepAliveTimeout OBJECT-TYPE  
SYNTAX Integer32  
MAX-ACCESS read-write  
STATUS current  
DESCRIPTION "A value indicating the Bridge Proposed VDP Keep Alive Timeout."

REFERENCE "12.24.1.1.3"  
::= { ieee8021BridgeEvbbConfig 4 }

--  
-- EVB Bridge Port Type managed object : see the extended  
-- ieee8021BridgeBasePortTypeCapabilities  
--

--  
-- Server Edge Port Configuration  
--

ieee8021BridgeEvbbSEPConfigTable OBJECT-TYPE  
SYNTAX SEQUENCE OF Ieee8021BridgeEvbbSEPConfigEntry  
MAX-ACCESS not-accessible  
STATUS current  
DESCRIPTION  
"A table that contains the SEP configuration items."  
REFERENCE "12.24.3"  
::= { ieee8021BridgeEvbbObjects 2 }

ieee8021BridgeEvbbSEPConfigEntry OBJECT-TYPE  
SYNTAX Ieee8021BridgeEvbbSEPConfigEntry  
MAX-ACCESS not-accessible  
STATUS current  
DESCRIPTION  
"A list of objects containing information about SEP configuration."

INDEX { ieee8021BridgeEvbbSEPComponentId,  
ieee8021BridgeEvbbSEPPort  
}  
::= { ieee8021BridgeEvbbSEPConfigTable 1 }

Ieee8021BridgeEvbbSEPConfigEntry ::= SEQUENCE {  
ieee8021BridgeEvbbSEPComponentId IEEE8021PbbComponentIdentifier,

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ieee8021BridgeEvbbSEPPort IEEE8021BridgePortNumber,

ieee8021BridgeEvbbTLVSupport TruthValue,  
ieee8021BridgeEvbbRRAdminStatus TruthValue,  
ieee8021BridgeEvbbRROperStatus TruthValue,  
ieee8021BridgeEvbbECAdminStatus TruthValue,  
ieee8021BridgeEvbbECOperStatus TruthValue,  
ieee8021BridgeEvbbECConfigAckTimer Integer32,  
ieee8021BridgeEvbbECOperAckTimer Integer32,  
ieee8021BridgeEvbbECOperMaxRetries Integer32,  
ieee8021BridgeEvbbECPTxFrameCount Counter64,  
ieee8021BridgeEvbbECPTxRetryCount Counter64,  
ieee8021BridgeEvbbECPTxFailures Counter64,  
ieee8021BridgeEvbbECPRxFrameCount Counter64,

ieee8021BridgeEvbbVDPsupport TruthValue,  
ieee8021BridgeEvbbVDPAdminStatus TruthValue,  
ieee8021BridgeEvbbVDPOperStatus TruthValue,  
ieee8021BridgeEvbbVDPOperRsrcTimeout Integer32,  
ieee8021BridgeEvbbVDPKeepAliveTimeout Integer32  
}

ieee8021BridgeEvbbSEPComponentId OBJECT-TYPE

SYNTAX IEEE8021PbbComponentIdentifier

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"The component identifier is used to distinguish between the multiple virtual bridge instances within a PBB. In simple situations where there is only a single component the default value is 1."

::= { ieee8021BridgeEvbbSEPConfigEntry 1 }

ieee8021BridgeEvbbSEPPort OBJECT-TYPE

SYNTAX IEEE8021BridgePortNumber

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"The port number of the port for which this entry contains EVBB management information."

REFERENCE "12.24.3.1.3 a)"

::= { ieee8021BridgeEvbbSEPConfigEntry 2 }

ieee8021BridgeEvbbTLVSupport OBJECT-TYPE

SYNTAX TruthValue

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"This object indicates the support for EVB TLV."

REFERENCE "12.24.3.1.3 b)"

::= { ieee8021BridgeEvbbSEPConfigEntry 3 }

ieee8021BridgeEvbbRRAdminStatus OBJECT-TYPE

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SYNTAX TruthValue  
MAX-ACCESS read-write  
STATUS current  
DESCRIPTION  
"This object is used to turn on or off the Reflective Relay."  
REFERENCE "12.24.3.1.3 c)"  
::= { ieee8021BridgeEvbbSEPConfigEntry 4 }

ieee8021BridgeEvbbRROperStatus OBJECT-TYPE  
SYNTAX TruthValue  
MAX-ACCESS read-only  
STATUS current  
DESCRIPTION  
"This object specifies the operational status of Reflective Relay."  
REFERENCE "12.24.3.1.3 d)"  
::= { ieee8021BridgeEvbbSEPConfigEntry 5 }

ieee8021BridgeEvbbECPAdminStatus OBJECT-TYPE  
SYNTAX TruthValue  
MAX-ACCESS read-write  
STATUS current  
DESCRIPTION  
"This object specifies the ECP administrative status."  
REFERENCE "12.24.3.1.3 e)"  
::= { ieee8021BridgeEvbbSEPConfigEntry 6 }

ieee8021BridgeEvbbECPOperStatus OBJECT-TYPE  
SYNTAX TruthValue  
MAX-ACCESS read-only  
STATUS current  
DESCRIPTION  
"This object specifies the ECP operational status."  
REFERENCE "12.24.3.1.3 f)"  
::= { ieee8021BridgeEvbbSEPConfigEntry 7 }

ieee8021BridgeEvbbECPConfigAckTimer OBJECT-TYPE  
SYNTAX Integer32  
MAX-ACCESS read-write  
STATUS current  
DESCRIPTION  
"This object specifies the administrative value of ackTimer for ECP."  
REFERENCE "12.24.3.1.3 g)"  
::= { ieee8021BridgeEvbbSEPConfigEntry 8 }

ieee8021BridgeEvbbECPOperAckTimer OBJECT-TYPE  
SYNTAX Integer32  
MAX-ACCESS read-only  
STATUS current  
DESCRIPTION  
"This object specifies the operational value of ackTimer for ECP."  
REFERENCE "12.24.3.1.3 h)"  
::= { ieee8021BridgeEvbbSEPConfigEntry 9 }

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ieee8021BridgeEvbbECPOperMaxRetries OBJECT-TYPE

SYNTAX Integer32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"This object specifies the maxRetries for ECP."

REFERENCE "12.24.3.1.3 i)"

::= { ieee8021BridgeEvbbSEPConfigEntry 10 }

ieee8021BridgeEvbbECPTxFrameCount OBJECT-TYPE

SYNTAX Counter64

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"This object specifies the TxFrameCount for ECP."

REFERENCE "12.24.3.1.3 j)"

::= { ieee8021BridgeEvbbSEPConfigEntry 11 }

ieee8021BridgeEvbbECPTxRetryCount OBJECT-TYPE

SYNTAX Counter64

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"This object specifies the TxRetryCount for ECP."

REFERENCE "12.24.3.1.3 k)"

::= { ieee8021BridgeEvbbSEPConfigEntry 12 }

ieee8021BridgeEvbbECPTxFailures OBJECT-TYPE

SYNTAX Counter64

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"This object specifies the TxFailures for ECP."

REFERENCE "12.24.3.1.3 l)"

::= { ieee8021BridgeEvbbSEPConfigEntry 13 }

ieee8021BridgeEvbbECPRxFrameCount OBJECT-TYPE

SYNTAX Counter64

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"This object specifies the RxFrameCount for ECP."

REFERENCE "12.24.3.1.3 m)"

::= { ieee8021BridgeEvbbSEPConfigEntry 14 }

ieee8021BridgeEvbbVDPSupport OBJECT-TYPE

SYNTAX TruthValue

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"This specifies the VDP support availability for this portIndex."

REFERENCE "12.24.3.1.3 n)"

::= { ieee8021BridgeEvbbSEPConfigEntry 15 }



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ieee8021BridgeEvbbVDPAdminStatus OBJECT-TYPE

SYNTAX TruthValue

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"This specifies the VDP administrative status."

REFERENCE "12.24.3.1.3 o)"

::= { ieee8021BridgeEvbbSEPConfigEntry 16 }

ieee8021BridgeEvbbVDPOperStatus OBJECT-TYPE

SYNTAX TruthValue

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"This specifies the VDP operational status."

REFERENCE "12.24.3.1.3 p)"

::= { ieee8021BridgeEvbbSEPConfigEntry 17 }

ieee8021BridgeEvbbVDPOperRsrcTimeout OBJECT-TYPE

SYNTAX Integer32

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"This object specifies the operational resource timeout value for VDP."

REFERENCE "12.24.3.1.3 q)"

::= { ieee8021BridgeEvbbSEPConfigEntry 18 }

ieee8021BridgeEvbbVDPKeepAliveTimeout OBJECT-TYPE

SYNTAX Integer32

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"This object specifies the keep alive timeout for VDP."

REFERENCE "12.24.3.1.3 r)"

::= { ieee8021BridgeEvbbSEPConfigEntry 19 }

--

-- VSI Database

--

ieee8021BridgeEvbbVSIDBObjects OBJECT IDENTIFIER ::= { ieee8021BridgeEvbbObjects 3 }

ieee8021BridgeEvbbVSIDBTable OBJECT-TYPE

SYNTAX SEQUENCE OF Ieee8021BridgeEvbbVSIDBEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"A table that contains database of the active Virtual Station Interfaces."

REFERENCE "12.24.4"

::= { ieee8021BridgeEvbbVSIDBObjects 1 }

ieee8021BridgeEvbbVSIDBEntry OBJECT-TYPE

SYNTAX Ieee8021BridgeEvbbVSIDBEntry

MAX-ACCESS not-accessible

STATUS current

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## DESCRIPTION

"A list of objects containing database of the active Virtual Station Interfaces."

```
INDEX { ieee8021BridgeEvbbSEPCoMponentId,
        ieee8021BridgeEvbbSEPPort,
        ieee8021BridgeEvbbVSIID
      }
 ::= { ieee8021BridgeEvbbVSIDBTable 1 }
```

ieee8021BridgeEvbbVSIDBEntry ::=

```
SEQUENCE {
  ieee8021BridgeEvbbVSIID          OCTET STRING,

  ieee8021BridgeEvbbVSITimeSinceCreate  TimeInterval,
  ieee8021BridgeEvbbVSIVDPTLV         INTEGER,

  ieee8021BridgeEvbbVSIReason          BITS,
  ieee8021BridgeEvbbVSICompletionCode  BITS,
  ieee8021BridgeEvbbVSIMgrID          OCTET STRING,
  ieee8021BridgeEvbbVSIType           OCTET STRING,
  ieee8021BridgeEvbbVSITypeVersion    OCTET STRING,

  ieee8021BridgeEvbbVSIFormat         INTEGER,
  ieee8021BridgeEvbbVSINumMACs        Integer32,
  ieee8021BridgeEvbbVDPMachineState   INTEGER,

  ieee8021BridgeEvbbVDPCoMmandsSucceeded Counter32,
  ieee8021BridgeEvbbVDPCoMmandsFailed Counter32,
  ieee8021BridgeEvbbVDPCoMmandReverts Counter32
}
```

```
ieee8021BridgeEvbbVSIID OBJECT-TYPE
SYNTAX OCTET STRING (SIZE (16))
MAX-ACCESS not-accessible
STATUS current
```

## DESCRIPTION

"This object specifies the b) VSIID that uniquely identifies the VSI in the DCN "

REFERENCE "12.24.4.1.3 b"

```
::= { ieee8021BridgeEvbbVSIDBEntry 1 }
```

```
ieee8021BridgeEvbbVSITimeSinceCreate OBJECT-TYPE
```

```
SYNTAX TimeInterval
```

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

```
STATUS current
```

## DESCRIPTION

"This object specifies the time since creation "

REFERENCE "12.24.4.1.3 c)"

```
::= { ieee8021BridgeEvbbVSIDBEntry 2 }
```

```
ieee8021BridgeEvbbVSIVDPTLV OBJECT-TYPE
```

```
SYNTAX INTEGER
```

```
{
```

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```
preAssociate (1),
preAssociateWithRsrcReservation (2),
associate (3),
deAssociate (4)
}
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"This object identifies the type of TLV."
REFERENCE "12.24.4.1.3 d)"
::= { ieee8021BridgeEvbbVSIDBEntry 3 }
```

```
ieee8021BridgeEvbbVSIREason OBJECT-TYPE
SYNTAX BITS
{
    success (0),
    invalidFormat (1),
    insufficientResources (2),
    otherfailure(3)
}
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"This object indicates the outcome of a request."
REFERENCE "12.24.4.1.3 e)"
::= { ieee8021BridgeEvbbVSIDBEntry 4 }
```

```
ieee8021BridgeEvbbVSICompletionCode OBJECT-TYPE
SYNTAX BITS
{
    noError(0),
    reverting (1),
    notReverting (2),
    recoverableError (3),
    notRecoverableError (4)
}
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"This object indicates the completion code."
REFERENCE "12.24.4.1.3 e)"
::= { ieee8021BridgeEvbbVSIDBEntry 5 }
```

```
ieee8021BridgeEvbbVSIManagerID OBJECT-TYPE
SYNTAX OCTET STRING (SIZE (1))
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"This object identifies the VSI Manager with a database that holds the detailed
VSI type and or instance definitions."
REFERENCE "12.24.4.1.3 f)"
```

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::= { ieee8021BridgeEvbbVSIDBEntry 6 }

ieee8021BridgeEvbbVSIType OBJECT-TYPE

SYNTAX OCTET STRING (SIZE(3))

MAX-ACCESS read-only

STATUS current

DESCRIPTION " The VTID is an integer value used to identify a pre-configured set of controls and attributes that are associated with a set of VSIs."

REFERENCE " 12.24.4.1.3 g"

::= { ieee8021BridgeEvbbVSIDBEntry 7 }

ieee8021BridgeEvbbVSITypeVersion OBJECT-TYPE

SYNTAX OCTET STRING (SIZE (1))

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The VSI Type Version is an integer identifier designating the expected/desired VTID version. The VTID version allows a VSI Manager Database to contain multiple versions of a given VSI Type, allowing smooth migration to newer VSI types."

REFERENCE "12.24.4.1.3 h)"

::= { ieee8021BridgeEvbbVSIDBEntry 8 }

ieee8021BridgeEvbbVSIFormat OBJECT-TYPE

SYNTAX INTEGER

{  
    basic (0),  
    partial (1),  
    vlanOnly (2)  
}

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"This object specifies the MAC/VLAN format.

basic - Basic MAC/VLAN format

partial - Partial MAC/VLAN format

vlanOnly - Vlan-only MAC/VLAN format

"

REFERENCE "12.24.4.1.3 i)"

::= { ieee8021BridgeEvbbVSIDBEntry 9 }

ieee8021BridgeEvbbVSINumMACs OBJECT-TYPE

SYNTAX Integer32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"This object specifies the the number of MAC address/VLAN ID pairs contained in the repeated protion of the MAC/VLANs field in the VDP TLV."

REFERENCE "12.24.4.1.3 j)"

::= { ieee8021BridgeEvbbVSIDBEntry 10 }

ieee8021BridgeEvbbVDPMachineState OBJECT-TYPE

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SYNTAX INTEGER  
    {  
        preAssociate (1),  
        preAssociateWithRsrcReservation (2),  
        associate (3),  
        deAssociate (4)  
    }  
MAX-ACCESS read-only  
STATUS current  
DESCRIPTION  
"This object specifies the VDP state machine."  
REFERENCE "12.24.4.1.3 l)"  
::= { ieee8021BridgeEvbbVSIDBEntry 11 }

ieee8021BridgeEvbbVDPCommandsSucceeded OBJECT-TYPE  
SYNTAX Counter32  
MAX-ACCESS read-only  
STATUS current  
DESCRIPTION  
"This object specifies the VDP number of successful commands since creation."  
REFERENCE "12.24.4.1.3 m)"  
::= { ieee8021BridgeEvbbVSIDBEntry 12 }

ieee8021BridgeEvbbVDPCommandsFailed OBJECT-TYPE  
SYNTAX Counter32  
MAX-ACCESS read-only  
STATUS current  
DESCRIPTION  
"This object specifies the VDP number of failed commands since creation "  
REFERENCE "12.24.4.1.3 n)"  
::= { ieee8021BridgeEvbbVSIDBEntry 13 }

ieee8021BridgeEvbbVDPCommandReverts OBJECT-TYPE  
SYNTAX Counter32  
MAX-ACCESS read-only  
STATUS current  
DESCRIPTION  
"This object specifies the VDP command reverts since creation "  
REFERENCE "12.24.4.1.3 o)"  
::= { ieee8021BridgeEvbbVSIDBEntry 14 }

-- List of MAC/VLANs

ieee8021BridgeEvbbVSIDBMacTable OBJECT-TYPE  
SYNTAX SEQUENCE OF Ieee8021BridgeEvbbVSIDBMacEntry  
MAX-ACCESS not-accessible  
STATUS current  
DESCRIPTION  
"A table that contains database of the active Virtual Station Interfaces."  
REFERENCE "12.24.4"  
::= { ieee8021BridgeEvbbVSIDBObjects 2 }

ieee8021BridgeEvbbVSIDBMacEntry OBJECT-TYPE

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SYNTAX Ieee8021BridgeEvbbVSIDBMacEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"A list of objects containing database of the MAC/VLANs associated with Virtual Station Interfaces."

INDEX { ieee8021BridgeEvbbSEPCComponentId,

iee8021BridgeEvbbSEPPort,

iee8021BridgeEvbbVSIID,

iee8021BridgeEvbbVSIMac,

iee8021BridgeEvbbVSIVlanId

}

::= { ieee8021BridgeEvbbVSIDBMacTable 1 }

Ieee8021BridgeEvbbVSIDBMacEntry ::=

SEQUENCE {

iee8021BridgeEvbbVSIMac            MacAddress,

iee8021BridgeEvbbVSIVlanId        VlanIndex

}

iee8021BridgeEvbbVSIMac OBJECT-TYPE

SYNTAX        MacAddress

MAX-ACCESS   not-accessible

STATUS        current

DESCRIPTION

"The mac-address part of the MAC/VLANs for a VSI."

REFERENCE "12.24.4.1.3 k"

::= { ieee8021BridgeEvbbVSIDBMacEntry 1 }

iee8021BridgeEvbbVSIVlanId OBJECT-TYPE

SYNTAX        VlanIndex

MAX-ACCESS   read-only

STATUS        current

DESCRIPTION

"The Vlan ID part of the MAC/VLANs for a VSI."

::= { ieee8021BridgeEvbbVSIDBMacEntry 2 }

-- Read VSIID records

iee8021BridgeEvbbVSIIDTable OBJECT-TYPE

SYNTAX        SEQUENCE OF Ieee8021BridgeEvbbVSIIDEntry

MAX-ACCESS   not-accessible

STATUS        current

DESCRIPTION

"A table contains the VSIID records."

REFERENCE "12.24.4.1"

::= { ieee8021BridgeEvbbVSIDBObjects 3 }

iee8021BridgeEvbbVSIIDEntry OBJECT-TYPE

# IEEE 802.1Qbg Clause 17 Comment

---

SYNTAX Ieee8021BridgeEvbbVSIIDEntry  
MAX-ACCESS not-accessible  
STATUS current  
DESCRIPTION  
"A list of objects containing the VSIID records."

INDEX { ieee8021BridgeEvbbVSIID,  
ieee8021BridgeEvbbSEPComponentId,  
ieee8021BridgeEvbbSEPVSIPort

}

::= { ieee8021BridgeEvbbVSIIDTable 1 }

Ieee8021BridgeEvbbVSIIDEntry ::=  
SEQUENCE {  
ieee8021BridgeEvbbSEPVSIPort IEEE8021BridgePortNumber  
}

ieee8021BridgeEvbbSEPVSIPort OBJECT-TYPE

SYNTAX IEEE8021BridgePortNumber

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The port number of the port for which this entry  
contains EVBB management information."

REFERENCE "12.24.4.1.3 b"

::= { ieee8021BridgeEvbbVSIIDEntry 1 }

-- 12.24.5 Uplink Access Port Configuration

ieee8021BridgeEvbbCDCPObjects OBJECT IDENTIFIER ::= { ieee8021BridgeEvbbObjects 4 }

ieee8021BridgeEvbbCDCPAdminCDCPEnable OBJECT-TYPE

SYNTAX INTEGER

{

enable(1),

disable(2)

}

MAX-ACCESS read-write

STATUS current

DESCRIPTION "CDCP enable/disable configuration object."

REFERENCE "12.24.5.1 a"

DEFVAL { 2 }

::= { ieee8021BridgeEvbbCDCPObjects 1 }

ieee8021BridgeEvbbCDCPAdminCDCPRole OBJECT-TYPE

SYNTAX INTEGER

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---

```
{
  cdcpRoleB(1),
  cdcpRoleS (2)
}
MAX-ACCESS read-write
STATUS current
DESCRIPTION "CDCP administrative role for this device."
REFERENCE "12.24.5.1 b"

DEFVAL { 1 }
::= { ieee8021BridgeEvbbCDCPObjects 2 }

ieee8021BridgeEvbbCDCPAdminCDCPChanCap OBJECT-TYPE
SYNTAX Integer32 (1 .. 167)
MAX-ACCESS read-write
STATUS current
DESCRIPTION "The administratively configured value for the Number of Channels supported parameter.
This value is included as the ChnCap parameter in the S-channel TLV."
REFERENCE "12.24.5.1 c"

::= { ieee8021BridgeEvbbCDCPObjects 3 }

ieee8021BridgeEvbbCDCPAdminCDCPSVIDPoolLow OBJECT-TYPE
SYNTAX VlanIndex
MAX-ACCESS read-write
STATUS current
DESCRIPTION "Determines the lowest S-VIDs available for assignment by CDCP."
REFERENCE "12.24.5.1 d"

::= { ieee8021BridgeEvbbCDCPObjects 4 }

ieee8021BridgeEvbbCDCPAdminCDCPSVIDPoolHigh OBJECT-TYPE
SYNTAX VlanIndex
MAX-ACCESS read-write
STATUS current
DESCRIPTION "Determines the highest S-VIDs available for assignment by CDCP."
REFERENCE "12.24.5.1 d "

::= { ieee8021BridgeEvbbCDCPObjects 5 }

-- UAP configuration

ieee8021BridgeEvbbUAPConfigTable OBJECT-TYPE
SYNTAX SEQUENCE OF Ieee8021BridgeEvbbUAPConfigEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
  "A table that contains configuration parameters for UAP."
REFERENCE "12.24.3"
::= { ieee8021BridgeEvbbCDCPObjects 6 }

ieee8021BridgeEvbbUAPConfigEntry OBJECT-TYPE
SYNTAX Ieee8021BridgeEvbbUAPConfigEntry
```



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---

MAX-ACCESS not-accessible  
STATUS current  
DESCRIPTION  
"A list of objects containing information to configure the attributes for UAP."

INDEX { ieee8021BridgeEvbbUAPComponentId,  
      ieee8021BridgeEvbbUAPPort  
      }  
::= { ieee8021BridgeEvbbUAPConfigTable 1 }

Ieee8021BridgeEvbbUAPConfigEntry ::=  
SEQUENCE {  
  ieee8021BridgeEvbbUAPComponentId IEEE8021PbbComponentIdentifier,  
  ieee8021BridgeEvbbUAPPort IEEE8021BridgePortNumber,  
  
  ieee8021BridgeEvbbUAPAdminCDCPEnable INTEGER, -- enable, disable  
  ieee8021BridgeEvbbUAPAdminCDCPRole INTEGER, -- B or S  
  ieee8021BridgeEvbbUAPAdminCDCPChanCap Integer32, -- (1 - 167)  
  ieee8021BridgeEvbbUAPAdminCDCPSVIDPoolLow VlanIndex,  
  ieee8021BridgeEvbbUAPAdminCDCPSVIDPoolHigh VlanIndex  
}

ieee8021BridgeEvbbUAPComponentId OBJECT-TYPE  
SYNTAX IEEE8021PbbComponentIdentifier  
MAX-ACCESS not-accessible  
STATUS current  
DESCRIPTION  
"The ComponentID of the port for the UAP."  
::= { ieee8021BridgeEvbbUAPConfigEntry 1 }

ieee8021BridgeEvbbUAPPort OBJECT-TYPE  
SYNTAX IEEE8021BridgePortNumber  
MAX-ACCESS not-accessible  
STATUS current  
DESCRIPTION  
"The port number of the port for the UAP."  
::= { ieee8021BridgeEvbbUAPConfigEntry 2 }

ieee8021BridgeEvbbUAPAdminCDCPEnable OBJECT-TYPE  
SYNTAX INTEGER  
{  
  enable (1),  
  disable (2)  
}  
MAX-ACCESS read-write  
STATUS current  
DESCRIPTION "Administrative status of CDCP."  
DEFVAL { 2 }  
  
::= { ieee8021BridgeEvbbUAPConfigEntry 3 }

# IEEE 802.1Qbg Clause 17 Comment

---

ieee8021BridgeEvbbUAPAdminCDCPRole OBJECT-TYPE  
SYNTAX INTEGER  
{  
  cdcpRoleB(1),  
  cdcpRoleS(2)  
}  
MAX-ACCESS read-write  
STATUS current  
DESCRIPTION "The administratively configured value for the local port's role parameter. The value of AdminRole is not reflected in the S-channel TLV. The AdminRole may take the value S or B. S indicates the sender is unwilling to accept S-channels configuration (mode, # channels supported, channel index) from its neighbor and that the sender is willing to accept SVID assignments from the neighbor. Stations usually take the S role. B indicates the sender is willing to accept S-channels configuration (mode, # channels supported, channel index) from its neighbor and that the sender is willing do the best it can to fill the SVID assignments from the neighbor. Bridges usually take the B role."  
DEFVAL { 1 }

::= { ieee8021BridgeEvbbUAPConfigEntry 4 }

ieee8021BridgeEvbbUAPAdminCDCPChanCap OBJECT-TYPE  
SYNTAX Integer32 (1 .. 167)  
MAX-ACCESS read-write  
STATUS current  
DESCRIPTION "The administratively configured value for the Number of Channels supported parameter. This value is included as the ChnCap parameter in the S-channel TLV."

::= { ieee8021BridgeEvbbUAPConfigEntry 5 }

ieee8021BridgeEvbbUAPAdminCDCPSVIDPoolLow OBJECT-TYPE  
SYNTAX VlanIndex  
MAX-ACCESS read-write  
STATUS current  
DESCRIPTION "Determines the lowest S-VIDs available for assignment by CDCP."

::= { ieee8021BridgeEvbbUAPConfigEntry 6 }

ieee8021BridgeEvbbUAPAdminCDCPSVIDPoolHigh OBJECT-TYPE  
SYNTAX VlanIndex  
MAX-ACCESS read-write  
STATUS current  
DESCRIPTION "Determines the highest S-VIDs available for assignment by CDCP."

::= { ieee8021BridgeEvbbUAPConfigEntry 7 }

-- S-Channel Interface Table

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---

ieee8021BridgeEvbbCAPConfigTable OBJECT-TYPE

SYNTAX SEQUENCE OF Ieee8021BridgeEvbbCAPConfigEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"A table that contains configuration information for the S-Channel Access Ports (CAP)."

REFERENCE "12.24.5"

::= { ieee8021BridgeEvbbCDCPObjects 7 }

ieee8021BridgeEvbbCAPConfigEntry OBJECT-TYPE

SYNTAX Ieee8021BridgeEvbbCAPConfigEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"A list of objects containing information for the S-Channel Access Ports (CAP)"

INDEX { ieee8021BridgeEvbbCAPComponentId,

ieee8021BridgeEvbbCAPPort

}

::= { ieee8021BridgeEvbbCAPConfigTable 1 }

Ieee8021BridgeEvbbCAPConfigEntry ::=

SEQUENCE {

ieee8021BridgeEvbbCAPComponentId IEEE8021PbbComponentIdentifier,

ieee8021BridgeEvbbCAPPort IEEE8021BridgePortNumber,

ieee8021BridgeEvbbCAPSChannelID Integer32,

ieee8021BridgeEvbbCAPSchState INTEGER, -- running, notRunning

ieee8021BridgeEvbbCAPAssociateIfType INTEGER, -- SEP, none (discard)

ieee8021BridgeEvbbCAPAssociateSEPCompID IEEE8021PbbComponentIdentifier,

ieee8021BridgeEvbbCAPAssociateSEPPort IEEE8021BridgePortNumber

}

ieee8021BridgeEvbbCAPComponentId OBJECT-TYPE

SYNTAX IEEE8021PbbComponentIdentifier

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION "Component ID for S-channel Access Port."

::= { ieee8021BridgeEvbbCAPConfigEntry 1 }

ieee8021BridgeEvbbCAPPort OBJECT-TYPE

SYNTAX IEEE8021BridgePortNumber

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION "Port number for the S-Channel Access Port."

::= { ieee8021BridgeEvbbCAPConfigEntry 2 }

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---

ieee8021BridgeEvbbCAPSChannelID OBJECT-TYPE  
SYNTAX Integer32  
MAX-ACCESS read-only  
STATUS current  
DESCRIPTION "S-Channel ID (SCID) for this CAP."

::= { ieee8021BridgeEvbbCAPConfigEntry 3 }

ieee8021BridgeEvbbCAPSchState OBJECT-TYPE  
SYNTAX INTEGER  
{  
notRunning (1),  
running (2)  
}  
MAX-ACCESS read-only  
STATUS current  
DESCRIPTION "The current running state of CDCP."

::= { ieee8021BridgeEvbbCAPConfigEntry 4 }

ieee8021BridgeEvbbCAPAssociateIfType OBJECT-TYPE  
SYNTAX INTEGER  
{  
none (1),  
sep (2)  
}  
MAX-ACCESS read-write  
STATUS current  
DESCRIPTION "The associated interface type for this CAP.  
none - discard  
sep - the associated port is of type SEP."

::= { ieee8021BridgeEvbbCAPConfigEntry 5 }

ieee8021BridgeEvbbCAPAssociateSEPCompID OBJECT-TYPE  
SYNTAX IEEE8021PbbComponentIdentifier  
MAX-ACCESS read-write  
STATUS current  
DESCRIPTION "Component ID of the Server Edge Port to be associated with the CAP."

::= { ieee8021BridgeEvbbCAPConfigEntry 6 }

ieee8021BridgeEvbbCAPAssociateSEPPort OBJECT-TYPE  
SYNTAX IEEE8021BridgePortNumber  
MAX-ACCESS read-write  
STATUS current  
DESCRIPTION "Port number of the Server Edge Port to be

# IEEE 802.1Qbg Clause 17 Comment

---

associated with the CAP."

```
::= { ieee8021BridgeEvbbCAPConfigEntry 7 }
```

```
-- =====  
-- Conformance Information  
-- =====
```

```
ieee8021BridgeEvbbGroups  
  OBJECT IDENTIFIER ::= { ieee8021BridgeEvbbConformance 1 }
```

```
ieee8021BridgeEvbbCompliances  
  OBJECT IDENTIFIER ::= { ieee8021BridgeEvbbConformance 2 }
```

```
-- =====  
-- Units of conformance  
-- =====
```

```
ieee8021BridgeEvbbConfigGroup OBJECT-GROUP  
  OBJECTS {  
    ieee8021BridgeEvbbECPACKTimer,  
    ieee8021BridgeEvbbECPMaxRetires,  
    ieee8021BridgeEvbbVDPResourceTimeout,  
    ieee8021BridgeEvbbVDPProposedKeepAliveTimeout  
  }  
  STATUS current  
  DESCRIPTION  
    "The collection of objects used to represent a EVBB management objects."  
  ::= { ieee8021BridgeEvbbGroups 1 }
```

```
ieee8021BridgeEvbbSEPConfigGroup OBJECT-GROUP  
  OBJECTS {  
    ieee8021BridgeEvbbTLVSupport,  
    ieee8021BridgeEvbbRRAdminStatus,  
    ieee8021BridgeEvbbRROperStatus,  
    ieee8021BridgeEvbbECPAdminStatus,  
    ieee8021BridgeEvbbECPOperStatus,  
    ieee8021BridgeEvbbECPCongAckTimer,  
    ieee8021BridgeEvbbECPOperAckTimer,  
    ieee8021BridgeEvbbECPOperMaxRetries,  
    ieee8021BridgeEvbbECPTxFrameCount,  
    ieee8021BridgeEvbbECPTxRetryCount,  
    ieee8021BridgeEvbbECPTxFailures,  
    ieee8021BridgeEvbbECPRxFrameCount,  
  
    ieee8021BridgeEvbbVDPSupport,  
    ieee8021BridgeEvbbVDPAdminStatus,  
    ieee8021BridgeEvbbVDPOperStatus,  
    ieee8021BridgeEvbbVDPOperRsrcTimeout,  
    ieee8021BridgeEvbbVDPKeepAliveTimeout
```

# IEEE 802.1Qbg Clause 17 Comment

---

```
}  
STATUS    current  
DESCRIPTION  
    "The collection of objects used to represent a EVBB SEP management objects."  
 ::= { ieee8021BridgeEvbbGroups 2 }
```

ieee8021BridgeEvbbVSIIDGroup OBJECT-GROUP

```
OBJECTS {  
    ieee8021BridgeEvbbVSITimeSinceCreate,  
    ieee8021BridgeEvbbVSIVDPTLV,  
  
    ieee8021BridgeEvbbVSIReason,  
    ieee8021BridgeEvbbVSICompletionCode ,  
    ieee8021BridgeEvbbVSIMgrID,  
    ieee8021BridgeEvbbVSIType,  
    ieee8021BridgeEvbbVSITypeVersion,  
  
    ieee8021BridgeEvbbVSIFormat,  
    ieee8021BridgeEvbbVSINumMACs,  
    ieee8021BridgeEvbbVDPMachineState,  
  
    ieee8021BridgeEvbbVDPCCommandsSucceeded,  
    ieee8021BridgeEvbbVDPCCommandsFailed,  
    ieee8021BridgeEvbbVDPCCommandReverts
```

```
}  
STATUS    current  
DESCRIPTION  
    "The collection of objects used to represent a EVBB VSIID management objects."  
 ::= { ieee8021BridgeEvbbGroups 3 }
```

ieee8021BridgeEvbbVSIDBGroup OBJECT-GROUP

```
OBJECTS {  
    ieee8021BridgeEvbbVSIVlanId,  
    ieee8021BridgeEvbbSEPVSIPort
```

```
}  
STATUS    current  
DESCRIPTION  
    "The collection of objects used to represent a EVBB VSI DB management objects."  
 ::= { ieee8021BridgeEvbbGroups 4 }
```

ieee8021BridgeEvbbCDCPGroup OBJECT-GROUP

```
OBJECTS {  
    ieee8021BridgeEvbbCDCPAdminCDCPEnable,  
    ieee8021BridgeEvbbCDCPAdminCDCPRole,  
    ieee8021BridgeEvbbCDCPAdminCDCPChanCap,  
    ieee8021BridgeEvbbCDCPAdminCDCPSVIDPoolLow,  
    ieee8021BridgeEvbbCDCPAdminCDCPSVIDPoolHigh
```

```
}  
STATUS    current  
DESCRIPTION  
    "The collection of objects used to represent a EVBB CDCP management objects."  
 ::= { ieee8021BridgeEvbbGroups 5 }
```

# IEEE 802.1Qbg Clause 17 Comment

---

```
ieee8021BridgeEvbbUAPConfigGroup OBJECT-GROUP
OBJECTS {
    ieee8021BridgeEvbbUAPAdminCDCPEnable,
    ieee8021BridgeEvbbUAPAdminCDCPRole,
    ieee8021BridgeEvbbUAPAdminCDCPChanCap,
    ieee8021BridgeEvbbUAPAdminCDCPSVIDPoolLow,
    ieee8021BridgeEvbbUAPAdminCDCPSVIDPoolHigh
}
STATUS    current
DESCRIPTION
    "The collection of objects used to represent a EVBB UAP management objects."
::= { ieee8021BridgeEvbbGroups 6 }

ieee8021BridgeEvbbCAPConfigGroup OBJECT-GROUP
OBJECTS {
    ieee8021BridgeEvbbCAPSChannelID,
    ieee8021BridgeEvbbCAPSchState,

    ieee8021BridgeEvbbCAPAssociateIfType,
    ieee8021BridgeEvbbCAPAssociateSEPCompID,
    ieee8021BridgeEvbbCAPAssociateSEPPort
}
STATUS    current
DESCRIPTION
    "The collection of objects used to represent a EVBB CAP management objects."
::= { ieee8021BridgeEvbbGroups 7 }

-- =====
-- compliance statements
-- =====

ieee8021BridgeEvbbCompliance MODULE-COMPLIANCE
STATUS    current
DESCRIPTION
    "The compliance statement for devices supporting EVBB
    as defined in IEEE 802.1Qbg."
MODULE
MANDATORY-GROUPS {
    ieee8021BridgeEvbbConfigGroup,
    ieee8021BridgeEvbbSEPCongfigGroup,
    ieee8021BridgeEvbbVSIIDGroup,
    ieee8021BridgeEvbbVSIDBGroup,
    ieee8021BridgeEvbbCDCPGroup,
    ieee8021BridgeEvbbUAPConfigGroup,
    ieee8021BridgeEvbbCAPConfigGroup
}

::= { ieee8021BridgeEvbbCompliances 1 }
```

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---

END