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Diameter Base Protocol MIB
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Abstract

Along with providing support for certain basic authentication, authorization and accounting functions, the Diameter protocol is designed to provide a framework for AAA applications.

This document defines the Management Information Base (MIB) module which describes the minimum set of objects needed to manage an implementation of the Diameter protocol.

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1. The Internet-Standard Management Framework

For a detailed overview of the documents that describe the current Internet-Standard Management Framework, please refer to [section 7 of RFC 3410](#) [[RFC3410](#)].

Managed objects are accessed via a virtual information store, termed the Management Information Base or MIB. MIB objects are generally accessed through the Simple Network Management Protocol (SNMP). Objects in the MIB are defined using the mechanisms defined in the Structure of Management Information (SMI). This memo specifies a MIB module that is compliant to the SMIV2, which is described in STD 58, [RFC 2578](#) [[RFC2578](#)], STD 58, [RFC 2579](#) [[RFC2579](#)] and STD 58, [RFC 2580](#) [[RFC2580](#)]. In particular, it describes managed objects used for managing the base Diameter protocol.

Discussion of this draft may be directed to the authors.

2. Requirements Language

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in [[RFC1215](#)].

3. Overview

The base Diameter protocol [[RFC3588](#)] is never used alone; it is always extended for a particular application. Four standard Diameter applications have been defined to date: NASREQ [[RFC4005](#)], Mobile IP [[RFC4004](#)] [[RFC3141](#)], Credit Control [[RFC4006](#)] and EAP [[RFC4072](#)]; others may be defined in the future.

This MIB defines objects supporting the management of the Diameter base protocol as described in [[RFC3588](#)]. Objects related to the applications mentioned above (and any additional applications created in the future) will be defined in separate documents.

4. Diameter Base Protocol MIB Definitions

```
DIAMETER-BASE-PROTOCOL-MIB DEFINITIONS ::= BEGIN
```

```
IMPORTS
```

```
    InetAddressType,  
    InetAddress
```

```
    FROM INET-ADDRESS-MIB -- [RFC4001]
```



```
MODULE-IDENTITY,
OBJECT-TYPE,
NOTIFICATION-TYPE,
Counter32,
Unsigned32,
Gauge32,
TimeTicks
    FROM SNMPv2-SMI -- [RFC2578]
SnmpAdminString
    FROM SNMP-FRAMEWORK-MIB -- [RFC3411]
NOTIFICATION-GROUP,
MODULE-COMPLIANCE,
OBJECT-GROUP
    FROM SNMPv2-CONF -- [RFC2580]
RowStatus,
TruthValue,
StorageType
    FROM SNMPv2-TC; -- [RFC2579]
```

DiameterBasePMIB MODULE-IDENTITY

```
LAST-UPDATED "200903060000Z" -- 06 March 2009
ORGANIZATION "IETF dime Working Group."
CONTACT-INFO
```

```
"Glen Zorn
Network Zen
1310 East Thomas Street
Seattle, WA 98102
USA
Phone: +1 (206) 377 9035
Email: gwz@net-zen.net"
```

DESCRIPTION

```
"The MIB module for entities implementing the
Diameter Base Protocol.
```

```
Copyright (C) The IETF Trust (2009). This initial
version of this MIB module was published in RFC yyyy;
for full legal notices see the RFC itself. Supplementary
information may be available on
http://www.ietf.org/copyrights/ianamib.html."
```

-- RFC Ed.: replace yyyy with actual RFC number and remove this note

```
REVISION "200903060000Z" -- 06 March 2009
```

```
DESCRIPTION "Initial version as published in RFC yyyy"
```

-- RFC Ed.: replace yyyy with actual RFC number and remove this note

```
::= { mib-2 119 } -- Experimental value assigned by IANA.
```


-- Top-Level Components of this MIB.

```
diameterBaseProtocolMIB    OBJECT ::= { diameterMIB 1 }
diameterBaseNotifications OBJECT IDENTIFIER ::=
    { diameterBaseProtocolMIB 0 }
diameterBaseObjects        OBJECT IDENTIFIER ::=
    { diameterBaseProtocolMIB 1 }
diameterBaseConform        OBJECT IDENTIFIER ::=
    { diameterBaseProtocolMIB 2 }
```

```
dbpLocalCfgs      OBJECT IDENTIFIER ::= { diameterBaseObjects 1 }
dbpLocalStats     OBJECT IDENTIFIER ::= { diameterBaseObjects 2 }
dbpPeerCfgs       OBJECT IDENTIFIER ::= { diameterBaseObjects 3 }
dbpPeerStats      OBJECT IDENTIFIER ::= { diameterBaseObjects 4 }
dbpRealmCfgs      OBJECT IDENTIFIER ::= { diameterBaseObjects 5 }
dbpRealmStats     OBJECT IDENTIFIER ::= { diameterBaseObjects 6 }
dbpNotifCfgs      OBJECT IDENTIFIER ::= { diameterBaseObjects 7 }
```

-- Protocol Error Notifications

dbpProtocolErrorNotifEnabled OBJECT-TYPE

SYNTAX TruthValue

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"Setting the value of this object to True(1)
enables the dbpProtocolErrorNotif notification."

DEFVAL {false}

::= { dbpNotifCfgs 1 }

dbpProtocolErrorNotif NOTIFICATION-TYPE

OBJECTS {

dbpPeerId,

dbpPerPeerStatsProtocolErrors

}

STATUS current

DESCRIPTION

"An dbpProtocolError Notification is sent when both the
following conditions are true:

1) the value of dbpProtocolErrorNotifEnabled is True(1)

2) the value of dbpPerPeerStatsProtocolErrors changes

It can be utilized by an NMS to trigger
logical/physical entity table maintenance polls.

An agent must not generate more than one

dbpProtocolError 'notification event' in a five second
period, where a 'notification event' is the

transmission of a single Notification PDU to a list of
Notification destinations.

If additional protocol errors occur within the five second 'throttling' period, then these notification events should be suppressed by the agent. An NMS should periodically check the value of dbpPerPeerStatsProtocolErrors to detect any missed dbpProtocolError notification events, e.g. due to throttling or transmission loss."

::= { diameterBaseNotifications 1 }

-- Transient Error Notifications

dbpTransientFailureNotifEnabled OBJECT-TYPE

SYNTAX TruthValue

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"Setting the value of this object to True(1) enables the dbpTransientFailure Notification."

::= { dbpNotifCfgs 2 }

dbpTransientFailureNotif NOTIFICATION-TYPE

OBJECTS {

dbpPeerId,

dbpPerPeerStatsTransientFailures

}

STATUS current

DESCRIPTION

"An dbpTransientFailure Notification is sent when both the following conditions are true:

1) the value of dbpTransientFailureNotifEnabled is True(1)

2) the value of dbpPerPeerStatsTransientFailures changes

It can be utilized by an NMS to trigger logical/physical entity table maintenance polls.

An agent must not generate more than one dbpTransientFailure 'notification event' in a five second period, where a 'notification event' is the transmission of a single notification PDU to a list of notification destinations.

If additional transient failures occur within the five second 'throttling' period, then these notification events should be suppressed by the agent.

An NMS should periodically check the value of dbpPerPeerStatsTransientFailures to detect any missed dbpTransientFailure notification events,

e.g. due to throttling or transmission loss."
::= { diameterBaseNotifications 2 }

-- Permanent Failure Notifications

dbpPermanentFailureNotifEnabled OBJECT-TYPE

SYNTAX TruthValue
MAX-ACCESS read-write
STATUS current
DESCRIPTION
"Setting the value of this object to True(1)
enables the dbpPermanentFailure notification."
DEFVALUE { false }
::= { dbpNotifCfgs 3 }

dbpPermanentFailureNotif NOTIFICATION-TYPE

OBJECTS {
dbpPeerId,
dbpPerPeerStatsPermanentFailures
}
STATUS current
DESCRIPTION
"An dbpPermanentFailure notification is sent when
both the following conditions are true:
1) the value of dbpPermanentFailureNotifEnabled
is True(1)
2) the value of dbpPerPeerStatsPermanentFailures
changes
It can be utilized by an NMS to trigger
logical/physical entity table maintenance polls.
An agent must not generate more than one
dbpPermanentFailure 'notification event' in a five
second period, where a 'notification event' is the
transmission of a single notification PDU to a list
of notification destinations.
If additional permanent failures occur within the
five second 'throttling' period, then these
trap-events should be suppressed by the agent.
An NMS should periodically check the value of
dbpPerPeerStatsPermanentFailures to detect
any missed dbpPermanentFailure trap-events,
e.g. due to throttling or transmission loss."
::= { diameterBaseNotifications 3 }

-- Connection Down Notifs

dbpPeerConnectionDownNotifEnabled OBJECT-TYPE

SYNTAX TruthValue

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"Setting the value of this object to True(1)
enables the dbpPeerConnectionDown notification."

DEFVAL { false }

::= { dbpNotifCfgs 4 }

dbpPeerConnectionDownNotif NOTIFICATION-TYPE

OBJECTS {

dbpLocalId,

dbpPeerId

}

STATUS current

DESCRIPTION

"An dbpPeerConnectionDown notification is sent when
both the following conditions are true:

1) the value of dbpPeerConnectionDownNotifEnabled is
True(1)

2) dbpPerPeerStatsState changes to closed(1)

It can be utilized by an NMS to trigger
logical/physical

entity table maintenance polls. An agent must not
generate more than one dbpPeerConnectionDown
'notification event' in a five second period, where a
'notification event' is the transmission of a single
notification PDU to a list of notification
destinations.

If additional 'transport down' events occur within the
five second 'throttling' period, then these trap-events
should be suppressed by the agent."

::= { diameterBaseNotifications 4 }

-- Connection Up Notifications

dbpPeerConnectionUpNotifEnabled OBJECT-TYPE

SYNTAX TruthValue

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"Setting the value of this object to True(1)
enables the dbpPeerConnectionUp notification."

DEFVAL { false }

::= { dbpNotifCfgs 5 }

dbpPeerConnectionUpNotif NOTIFICATION-TYPE

OBJECTS {

dbpLocalId,
dbpPeerId

}

STATUS current

DESCRIPTION

"An dbpPeerConnectionUp notification is sent
when both the following conditions are true:

- 1) the value of dbpPeerConnectionUpNotifEnabled is
True(1)
- 2) the value of dbpPerPeerStatsState changes to
either rOpen(6) or iOpen(7)

It can be utilized by an NMS to trigger
logical/physical entity table maintenance polls.

An agent must not generate

more than one dbpPeerConnectionUp

'notification event' in a

five second period, where a 'notification event' is the
transmission of a single notification PDU to a
list of notification destinations.

If additional 'connection up' events

occur within the five second 'throttling' period,
then these trap-events should be suppressed by the
agent."

::= { diameterBaseNotifications 5 }

-- Local Configs

dbpLocalId OBJECT-TYPE

SYNTAX SnmpAdminString

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The implementation-specific identification
string for the Diameter software in use on
the system; for example: 'diameterd'"

::= { dbpLocalCfgs 1 }

dbpLocalIpAddrTable OBJECT-TYPE

SYNTAX SEQUENCE OF DbpLocalIpAddrEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"The table listing the Diameter
local host's IP Addresses."

::= { dbpLocalCfgs 2 }

dbpLocalIpAddrEntry OBJECT-TYPE

SYNTAX DbpLocalIpAddrEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"A row entry representing a Diameter
local host IP Address."

INDEX { dbpLocalIpAddrIndex }

::= { dbpLocalIpAddrTable 1 }

DbpLocalIpAddrEntry ::= SEQUENCE {

dbpLocalIpAddrIndex Unsigned32,

dbpLocalIpAddrType InetAddressType,

dbpLocalIpAddress InetAddress

}

dbpLocalIpAddrIndex OBJECT-TYPE

SYNTAX Unsigned32 (1..4294967295)

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"A number uniquely identifying an IP Address
supported by this Diameter host."

::= { dbpLocalIpAddrEntry 1 }

dbpLocalIpAddrType OBJECT-TYPE

SYNTAX InetAddressType

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The type of internet address stored
in dbpLocalIpAddress."

::= { dbpLocalIpAddrEntry 2 }

dbpLocalIpAddress OBJECT-TYPE

SYNTAX InetAddress

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The IP-Address of the host, which is of the type
specified in dbpLocalIpAddrType."

::= { dbpLocalIpAddrEntry 3 }

dbpLocalTcpListenPort OBJECT-TYPE

SYNTAX Unsigned32 (1..65535)

MAX-ACCESS read-only

STATUS current

DESCRIPTION


```
        "Diameter TCP 'listen' port."
 ::= { dbpLocalCfgs 3 }
```

```
dbpLocalSctpListenPort OBJECT-TYPE
    SYNTAX      Unsigned32 (1..65535)
    MAX-ACCESS   read-only
    STATUS       current
    DESCRIPTION
        "Diameter SCTP 'listen' port."
 ::= { dbpLocalCfgs 4 }
```

```
dbpLocalOriginHost OBJECT-TYPE
    SYNTAX      SnmpAdminString
    MAX-ACCESS   read-write
    STATUS       current
    DESCRIPTION  "This object represents the Local Origin Host."
    DEFVAL       { "" }
 ::= { dbpLocalCfgs 5 }
```

```
dbpLocalRealm OBJECT-TYPE
    SYNTAX      SnmpAdminString
    MAX-ACCESS   read-only
    STATUS       current
    DESCRIPTION  "This object represents the Local Realm Name."
    DEFVAL       { "" }
 ::= { dbpLocalCfgs 6 }
```

```
dbpLocalStatsTotalMessagesIn OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS   read-only
    STATUS       current
    DESCRIPTION
        "The total number of Diameter Base Protocol
         messages received."
 ::= { dbpLocalStats 1 }
```

```
dbpLocalStatsTotalMessagesOut OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS   read-only
    STATUS       current
    DESCRIPTION
        "The total number of Diameter Base Protocol
         messages transmitted."
 ::= { dbpLocalStats 2 }
```

```
dbpLocalStatsTotalUpTime OBJECT-TYPE
    SYNTAX      TimeTicks
```


MAX-ACCESS read-only
STATUS current
DESCRIPTION
 "This object represents the total time this Diameter
 server has been up until now."
 ::= { dbpLocalStats 3 }

dbpLocalResetTime OBJECT-TYPE
 SYNTAX TimeTicks
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "If the server keeps persistent state (e.g., a process)
 and supports a 'reset' operation (e.g., can be told to
 re-read configuration files), this value will be the
 time elapsed (in hundredths of a second) since the
 server was 'reset'. For software that does not
 have persistence or does not support a 'reset'
 operation, this value will be zero."
 ::= { dbpLocalStats 4 }

dbpLocalConfigReset OBJECT-TYPE
 SYNTAX INTEGER { other(1),
 initializing(2),
 running(3) }
 MAX-ACCESS read-write
 STATUS current
 DESCRIPTION
 "Status/action object to reinitialize any persistent
 server state. When set to reset(2), any persistent
 server state (such as a process) is reinitialized as
 if the server had just been started. This value will
 never be returned by a read operation. When read,
 one of the following values will be returned:
 other(1) - server in some unknown state;
 initializing(2) - server (re)initializing;
 running(3) - server currently running."
 DEFVAL { other }
 ::= { dbpLocalStats 5 }

dbpLocalApplTable OBJECT-TYPE
 SYNTAX SEQUENCE OF DbpLocalApplEntry
 MAX-ACCESS not-accessible
 STATUS current
 DESCRIPTION
 "The table listing the Diameter applications
 supported by this server."
 ::= { dbpLocalCfgs 7 }

dbpLocalApplEntry OBJECT-TYPE

SYNTAX DbpLocalApplEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"A row entry representing a Diameter application on this server."

INDEX { dbpLocalApplIndex }

::= { dbpLocalApplTable 1 }

DbpLocalApplEntry ::= SEQUENCE {

dbpLocalApplIndex Unsigned32,

dbpLocalApplStorageType StorageType,

dbpLocalApplRowStatus RowStatus

}

dbpLocalApplIndex OBJECT-TYPE

SYNTAX Unsigned32 (1..4294967295)

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"A number uniquely identifying a supported Diameter application. Upon reload, dbpLocalApplIndex values may be changed."

::= { dbpLocalApplEntry 1 }

dbpLocalApplStorageType OBJECT-TYPE

SYNTAX StorageType

MAX-ACCESS read-create

STATUS current

DESCRIPTION

"The storage type for this conceptual row. None of the columnar objects is writable when the conceptual row is permanent."

REFERENCE "Textual Conventions for SMIV2, [Section 2](#)."

DEFVAL { nonVolatile }

::= { dbpLocalApplEntry 2 }

dbpLocalApplRowStatus OBJECT-TYPE

SYNTAX RowStatus

MAX-ACCESS read-create

STATUS current

DESCRIPTION

"The status of this conceptual row.

To create a row in this table, a manager must set this object to either createAndGo(4) or createAndWait(5).

Until instances of all corresponding columns are appropriately configured, the value of the corresponding instance of the dbpLocalApplRowStatus column is 'notReady'.

In particular, a newly created row cannot be made active until the corresponding dbpLocalApplIndex has been set.

dbpLocalApplIndex may not be modified while the value of this object is active(1): An attempt to set these objects while the value of dbpLocalApplRowStatus is active(1) will result in an inconsistentValue error.

Entries in this table with dbpLocalApplRowStatus equal to active(1) remain in the table until destroyed.

Entries in this table with dbpLocalApplRowStatus equal to values other than active(1) will be destroyed after timeout (5 minutes)."

```
::= { dbpLocalApplEntry 3 }
```

dbpPeerTable OBJECT-TYPE

SYNTAX SEQUENCE OF DbpPeerEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"The table listing information regarding the discovered or configured Diameter peer servers."

```
::= { dbpPeerCfgs 1 }
```

dbpPeerEntry OBJECT-TYPE

SYNTAX DbpPeerEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"A row entry representing a discovered or configured Diameter peer server."

INDEX { dbpPeerIndex }

```
::= { dbpPeerTable 1 }
```

DbpPeerEntry ::= SEQUENCE {

dbpPeerIndex Unsigned32,

dbpPeerId SnmpAdminString,

dbpPeerPortConnect Unsigned32,

dbpPeerPortListen Unsigned32,

dbpPeerProtocol	INTEGER,
dbpPeerSecurity	INTEGER,
dbpPeerFirmwareRevision	Unsigned32,
dbpPeerStorageType	StorageType,
dbpPeerRowStatus	RowStatus }

dbpPeerIndex OBJECT-TYPE

SYNTAX Unsigned32 (1..4294967295)

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"A number uniquely identifying each Diameter peer
with which the host server communicates.

Upon reload, dbpPeerIndex values may be changed."

::= { dbpPeerEntry 1 }

dbpPeerId OBJECT-TYPE

SYNTAX SnmpAdminString

MAX-ACCESS read-create

STATUS current

DESCRIPTION

"The server identifier for the Diameter peer.

It must be unique and non-empty."

::= { dbpPeerEntry 2 }

dbpPeerPortConnect OBJECT-TYPE

SYNTAX Unsigned32 (1..65535)

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The connection port this server used
to connect to the Diameter peer.

If there is no active connection, this
value will be zero(0)."

::= { dbpPeerEntry 3 }

dbpPeerPortListen OBJECT-TYPE

SYNTAX Unsigned32 (1..65535)

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The port the server is listening on."

::= { dbpPeerEntry 4 }

dbpPeerProtocol OBJECT-TYPE

SYNTAX INTEGER { tcp(1),
sctp(2) }

MAX-ACCESS read-only

STATUS current
DESCRIPTION
"The transport protocol (tcp/sctp) the
Diameter peer is using."
::= { dbpPeerEntry 5 }

dbpPeerSecurity OBJECT-TYPE
SYNTAX INTEGER { other(1),
tls(2),
ipsec(3) }
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The security the Diameter peer is using.

other(1) - Unknown Security Protocol
tls(2) - Transport Layer Security Protocol
ipsec(3) - Internet Protocol Security"
DEFVAL { other }
::= { dbpPeerEntry 6 }

dbpPeerFirmwareRevision OBJECT-TYPE
SYNTAX Unsigned32 (1..4294967295)
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"Firmware revision of peer. If no firmware
revision, the revision of the Diameter software
module may be reported instead."
::= { dbpPeerEntry 7 }

dbpPeerStorageType OBJECT-TYPE
SYNTAX StorageType
MAX-ACCESS read-create
STATUS current
DESCRIPTION
"The storage type for this conceptual row.
Only the dbpPeerPortListen object is writable when
the conceptual row is permanent."
REFERENCE "Textual Conventions for SMIV2, [Section 2](#)."
DEFVAL { nonVolatile }
::= { dbpPeerEntry 8 }

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

"Status of the peer entry: creating the entry enables the peer, destroying the entry disables the peer."

::= { dbpPeerEntry 9 }

dbpPeerIpAddrTable OBJECT-TYPE

SYNTAX SEQUENCE OF DbpPeerIpAddrEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"The table listing the Diameter peer IP addresses."

::= { dbpPeerCfgs 2 }

dbpPeerIpAddrEntry OBJECT-TYPE

SYNTAX DbpPeerIpAddrEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"A row entry representing a peer Diameter server."

INDEX {
dbpPeerIndex,
dbpPeerIpAddressIndex }

::= { dbpPeerIpAddrTable 1 }

DbpPeerIpAddrEntry ::= SEQUENCE {
dbpPeerIpAddressIndex Unsigned32,
dbpPeerIpAddressType InetAddressType,
dbpPeerIpAddress InetAddress }

dbpPeerIpAddressIndex OBJECT-TYPE

SYNTAX Unsigned32 (1..4294967295)

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"A number uniquely identifying an IP Address supported by this Diameter peer."

::= { dbpPeerIpAddrEntry 1 }

dbpPeerIpAddressType OBJECT-TYPE

SYNTAX InetAddressType

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The type of address stored in dbpPeerIpAddress."

::= { dbpPeerIpAddrEntry 2 }

dbpPeerIpAddress OBJECT-TYPE

SYNTAX InetAddress

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The active IP Address(es) used for connections."

::= { dbpPeerIpAddrEntry 3 }

dbpAppAdvToPeerTable OBJECT-TYPE

SYNTAX SEQUENCE OF DbpAppAdvToPeerEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"The table listing the applications advertised by
this host to each peer and the types of service
supported: accounting, authentication or both."

::= { dbpLocalCfgs 8 }

dbpAppAdvToPeerEntry OBJECT-TYPE

SYNTAX DbpAppAdvToPeerEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"A row entry representing a discovered or
configured Diameter peer server."

INDEX { dbpPeerIndex,
dbpAppAdvToPeerVendorId,
dbpAppAdvToPeerIndex }

::= { dbpAppAdvToPeerTable 1 }

DbpAppAdvToPeerEntry ::= SEQUENCE {

dbpAppAdvToPeerVendorId Unsigned32,

dbpAppAdvToPeerIndex Unsigned32,

dbpAppAdvToPeerServices INTEGER,

dbpAppAppAdvToPeerStorageType StorageType,

dbpAppAdvToPeerRowStatus RowStatus }

dbpAppAdvToPeerVendorId OBJECT-TYPE

SYNTAX Unsigned32 (1..4294967295)

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"The IANA Enterprise Code value assigned to
the vendor of the Diameter device."

::= { dbpAppAdvToPeerEntry 1 }

dbpAppAdvToPeerIndex OBJECT-TYPE

SYNTAX Unsigned32 (1..4294967295)


```
MAX-ACCESS not-accessible
STATUS      current
DESCRIPTION
    "A number uniquely identifying a Diameter
    application advertised as supported by
    this host to each peer. Upon reload,
    dbpAppAdvToPeerIndex values may be
    changed"
::= { dbpAppAdvToPeerEntry 2 }
```

```
dbpAppAdvToPeerServices OBJECT-TYPE
    SYNTAX      INTEGER { acct(1),
                          auth(2),
                          both(3) }
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The type of services supported for each application,
        accounting, authentication or both."
    ::= { dbpAppAdvToPeerEntry 3 }
```

```
dbpAppAdvToPeerStorageType OBJECT-TYPE
    SYNTAX      StorageType
    MAX-ACCESS  read-create
    STATUS      current
    DESCRIPTION
        "The storage type for this conceptual row.
        None of the objects are writable when the
        conceptual row is permanent."
    REFERENCE   "Textual Conventions for SMIV2, Section 2."
    DEFVAL      { nonVolatile }
    ::= { dbpAppAdvToPeerEntry 4 }
```

```
dbpAppAdvToPeerRowStatus OBJECT-TYPE
    SYNTAX      RowStatus
    MAX-ACCESS  read-create
    STATUS      current
    DESCRIPTION
        "Status of the entry: creating the entry causes the
        application to be advertised, destroying the entry
        ceases advertisement."
    ::= { dbpAppAdvToPeerEntry 5 }
```

-- Applications advertised BY peers

```
dbpAppAdvFromPeerTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF DbpAppAdvFromPeerEntry
    MAX-ACCESS  not-accessible
```



```
STATUS          current
DESCRIPTION
    "The table listing the applications advertised by
    each peer to this host and the types of service
    supported: accounting, authentication or both."
 ::= { dbpPeerCfgs 3 }

dbpAppAdvFromPeerEntry OBJECT-TYPE
    SYNTAX      DbpAppAdvFromPeerEntry
    MAX-ACCESS   not-accessible
    STATUS      current
    DESCRIPTION
        "A row entry representing a discovered or
        configured Diameter peer server."
    INDEX       {
                dbpPeerIndex,
                dbpAppAdvFromPeerVendorId,
                dbpAppAdvFromPeerIndex
                }
    ::= { dbpAppAdvFromPeerTable 1 }

DbpAppAdvFromPeerEntry ::= SEQUENCE {
    dbpAppAdvFromPeerVendorId Unsigned32,
    dbpAppAdvFromPeerIndex   Unsigned32,
    dbpAppAdvFromPeerType    INTEGER
}

dbpAppAdvFromPeerVendorId OBJECT-TYPE
    SYNTAX      Unsigned32 (1..4294967295 )
    MAX-ACCESS   not-accessible
    STATUS      current
    DESCRIPTION
        "The IANA Enterprise Code value assigned to
        the vendor of the Diameter application."
    ::= { dbpAppAdvFromPeerEntry 1 }

dbpAppAdvFromPeerIndex OBJECT-TYPE
    SYNTAX      Unsigned32 (1..4294967295 )
    MAX-ACCESS   not-accessible
    STATUS      current
    DESCRIPTION
        "A number uniquely identifying the applications
        advertised as supported from each Diameter peer."
    ::= { dbpAppAdvFromPeerEntry 2 }

dbpAppAdvFromPeerType OBJECT-TYPE
    SYNTAX      INTEGER {
                acct(1),
```



```

        auth(2),
        both(3)
    }
    MAX-ACCESS      read-only
    STATUS          current
    DESCRIPTION
        "The type of services supported for each application,
        accounting, authentication or both.
        acct(1) - accounting
        auth(2) - authentication
        both(3) - both accounting and authentication."
    ::= { dbpAppAdvFromPeerEntry 3 }

```

-- table of vendor-IDs supported by each peer

```

dbpPeerVendorTable OBJECT-TYPE
    SYNTAX          SEQUENCE OF DbpPeerVendorEntry
    MAX-ACCESS      not-accessible
    STATUS          current
    DESCRIPTION
        "The table listing the Vendor IDs
        supported by the peer."
    ::= { dbpPeerCfgs 4 }

```

```

dbpPeerVendorEntry OBJECT-TYPE
    SYNTAX          DbpPeerVendorEntry
    MAX-ACCESS      not-accessible
    STATUS          current
    DESCRIPTION
        "A row entry representing a
        Vendor ID supported by the peer."
    INDEX
        {
            dbpPeerIndex,
            dbpPeerVendorIndex
        }
    ::= { dbpPeerVendorTable 1 }

```

```

DbpPeerVendorEntry ::= SEQUENCE {
    dbpPeerVendorIndex      Unsigned32,
    dbpPeerVendorId         INTEGER ,
    dbpPeerVendorStorageType StorageType,
    dbpPeerVendorRowStatus  RowStatus
}

```

```

dbpPeerVendorIndex OBJECT-TYPE
    SYNTAX          Unsigned32 (1..4294967295 )
    MAX-ACCESS      not-accessible
    STATUS          current

```


DESCRIPTION

"A number uniquely identifying the Vendor ID supported by the peer. Upon reload, dbpPeerVendorIndex values may be changed."

::= { dbpPeerVendorEntry 1 }

dbpPeerVendorId OBJECT-TYPE

SYNTAX INTEGER {
 diameterVendorIetf(0),
 diameterVendorCisco(9),
 diameterVendor3gpp(10415),
 diameterVendorVodafone(12645)
}

MAX-ACCESS read-create

STATUS current

DESCRIPTION

"The active vendor ID used for peer connections.

diameterVendorIetf(0) -- IETF

diameterVendor3gpp(10415) - 3GPP

DEFVAL { diameterVendorIetf }

::= { dbpPeerVendorEntry 2 }

dbpPeerVendorStorageType OBJECT-TYPE

SYNTAX StorageType

MAX-ACCESS read-create

STATUS current

DESCRIPTION

"The storage type for this conceptual row.

None of the objects are writable when the conceptual row is permanent."

REFERENCE "Textual Conventions for SMIV2, [Section 2](#)."

DEFVAL { nonVolatile }

::= { dbpPeerVendorEntry 3 }

dbpPeerVendorRowStatus OBJECT-TYPE

SYNTAX RowStatus

MAX-ACCESS read-create

STATUS current

DESCRIPTION

"The status of this conceptual row.

To create a row in this table, a manager must set this object to either createAndGo(4) or createAndWait(5).

Until instances of all corresponding columns are appropriately configured, the value of the corresponding instance of the dbpPeerVendorRowStatus

column is 'notReady'.

In particular, a newly created row cannot be made active until the corresponding dbpPeerVendorId has been set. Also, a newly created row cannot be made active until the corresponding 'dbpPeerIndex' has been set.

dbpPeerVendorId may not be modified while the value of this object is active(1):
An attempt to set these objects while the value of dbpPeerVendorRowStatus is active(1) will result in an inconsistentValue error.

Entries in this table with dbpPeerVendorRowStatus equal to active(1) remain in the table until destroyed.

Entries in this table with dbpPeerVendorRowStatus equal to values other than active(1) will be destroyed after timeout (5 minutes)."

::= { dbpPeerVendorEntry 4 }

dbpPerPeerStatsTable OBJECT-TYPE

SYNTAX SEQUENCE OF DbpPerPeerStatsEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"The table listing the Diameter peer statistics."

::= { dbpPeerStats 1 }

dbpPerPeerStatsEntry OBJECT-TYPE

SYNTAX DbpPerPeerStatsEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"A row entry representing a Diameter peer."

INDEX { dbpPeerIndex }

::= { dbpPerPeerStatsTable 1 }

DbpPerPeerStatsEntry ::= SEQUENCE {

dbpPerPeerStatsState	INTEGER,
dbpPerPeerStatsStateDuration	TimeTicks,
dbpPerPeerStatsLastDiscCause	INTEGER,
dbpPerPeerStatsWhoInitDisconnect	INTEGER,
dbpPerPeerStatsDwCurrentStatus	INTEGER,
dbpPerPeerStatsTimeoutConnAtmpts	Counter32,
dbpPerPeerStatsASRsIn	Counter32,
dbpPerPeerStatsASRsOut	Counter32,

dbpPerPeerStatsASAsIn	Counter32,
dbpPerPeerStatsASAsOut	Counter32,
dbpPerPeerStatsACRsIn	Counter32,
dbpPerPeerStatsACRsOut	Counter32,
dbpPerPeerStatsACAsIn	Counter32,
dbpPerPeerStatsACAsOut	Counter32,
dbpPerPeerStatsCERsIn	Counter32,
dbpPerPeerStatsCERsOut	Counter32,
dbpPerPeerStatsCEAsIn	Counter32,
dbpPerPeerStatsCEAsOut	Counter32,
dbpPerPeerStatsDWRsIn	Counter32,
dbpPerPeerStatsDWRsOut	Counter32,
dbpPerPeerStatsDWAsIn	Counter32,
dbpPerPeerStatsDWAsOut	Counter32,
dbpPerPeerStatsDPRsIn	Counter32,
dbpPerPeerStatsDPRsOut	Counter32,
dbpPerPeerStatsDPAsIn	Counter32,
dbpPerPeerStatsDPAsOut	Counter32,
dbpPerPeerStatsRARsIn	Counter32,
dbpPerPeerStatsRARsOut	Counter32,
dbpPerPeerStatsRAAsIn	Counter32,
dbpPerPeerStatsRAAsOut	Counter32,
dbpPerPeerStatsSTRsIn	Counter32,
dbpPerPeerStatsSTRsOut	Counter32,
dbpPerPeerStatsSTAsIn	Counter32,
dbpPerPeerStatsSTAsOut	Counter32,
dbpPerPeerStatsDWReqTimer	TimeTicks,
dbpPerPeerStatsRedirectEvents	Counter32,
dbpPerPeerStatsAccDupRequests	Counter32,
dbpPerPeerStatsMalformedReqsts	Counter32,
dbpPerPeerStatsAccsNotRecorded	Counter32,
dbpPerPeerStatsAccRetrans	Counter32,
dbpPerPeerStatsTotalRetrans	Counter32,
dbpPerPeerStatsAccPendReqstsOut	Gauge32,
dbpPerPeerStatsAccReqstsDropped	Counter32,
dbpPerPeerStatsSHByHDropMessages	Counter32,
dbpPerPeerStatsEToEDupMessages	Counter32,
dbpPerPeerStatsUnknownTypes	Counter32,
dbpPerPeerStatsProtocolErrors	Counter32,
dbpPerPeerStatsTransientFailures	Counter32,
dbpPerPeerStatsPermanentFailures	Counter32,
dbpPerPeerStatsTransportDown	Counter32 }

dbpPerPeerStatsState OBJECT-TYPE

```

SYNTAX      INTEGER { closed(1),
                        waitConnAck(2),
                        waitICea(3),
                        elect(4),

```



```

        waitReturns(5),
        rOpen(6),
        iOpen(7),
        closing(8) }

```

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"Connection state in the Peer State Machine of the peer with which this Diameter server is communicating.

```

        closed      - Connection closed with this peer.
        waitConnAck - Waiting for an acknowledgment
                     from this peer.
        waitICea    - Waiting for a Capabilities-Exchange-
                     Answer from this peer.
        elect       - When the peer and the server are both
                     trying to bring up a connection with
                     each other at the same time. An
                     election process begins which
                     determines which socket remains open.
        waitReturns - Waiting for election returns.
        r-open      - Responder transport connection is
                     used for communication.
        i-open      - Initiator transport connection is
                     used for communication.
        closing     - Actively closing and doing cleanup."

```

```
 ::= { dbpPerPeerStatsEntry 1 }
```

dbpPerPeerStatsStateDuration OBJECT-TYPE

SYNTAX TimeTicks

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"Peer state duration."

```
 ::= { dbpPerPeerStatsEntry 2 }
```

dbpPerPeerStatsLastDiscCause OBJECT-TYPE

```

SYNTAX INTEGER { rebooting(1),
                 busy(2),
                 doNotWantToTalk(3),
                 election(4) }

```

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The last cause for a peer's disconnection.

```

        rebooting      - A scheduled reboot is imminent.

```


- busy - The peer's internal resources are constrained, and it has determined that the transport connection needs to be shutdown.
- doNotWantToTalk - The peer has determined that it does not see a need for the transport connection to exist, since it does not expect any messages to be exchanged in the foreseeable future.
- electionLost - The peer has determined that it has lost the election process and has therefore disconnected the transport connection."

::= { dbpPerPeerStatsEntry 3 }

dbpPerPeerStatsWhoInitDisconnect OBJECT-TYPE

SYNTAX INTEGER { host(1),
peer(2) }

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"Did the host or peer initiate the disconnect?

host - If this server initiated the disconnect.

peer - If the peer with which this server was connected initiated the disconnect."

::= { dbpPerPeerStatsEntry 4 }

dbpPerPeerStatsDWCurrentStatus OBJECT-TYPE

SYNTAX INTEGER { okay(1),
suspect(2),
down(3),
reopen(4) }

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"okay - Indicates the connection is presumed working.

suspect - Indicates the connection is possibly congested or down.

down - The peer is no longer reachable, causing the transport connection to be shutdown.

reopen - Three watchdog messages are exchanged with accepted round trip times, and the connection to the peer is considered stabilized."

::= { dbpPerPeerStatsEntry 5 }

dbpPerPeerStatsTimeoutConnAtmpts OBJECT-TYPE


```
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "If there is no transport connection with a peer,
     this is the number of times the server attempts
     to connect to that peer. This is reset on
     disconnection."
 ::= { dbpPerPeerStatsEntry 6 }
```

```
dbpPerPeerStatsASRsIn OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Number of Abort-Session-Request messages
         received from the peer."
    ::= { dbpPerPeerStatsEntry 7 }
```

```
dbpPerPeerStatsASRsOut OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Number of Abort-Session-Request
         messages sent to the peer."
    ::= { dbpPerPeerStatsEntry 8 }
```

```
dbpPerPeerStatsASAsIn OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Number of Abort-Session-Answer
         messages received from the peer."
    ::= { dbpPerPeerStatsEntry 9 }
```

```
dbpPerPeerStatsASAsOut OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Number of Abort-Session-Answer
         messages sent to the peer."
    ::= { dbpPerPeerStatsEntry 10 }
```

```
dbpPerPeerStatsACRsIn OBJECT-TYPE
    SYNTAX      Counter32
```


MAX-ACCESS read-only
STATUS current
DESCRIPTION
 "Number of Accounting-Request messages
 received from the peer."
::= { dbpPerPeerStatsEntry 11 }

dbpPerPeerStatsACRsOut OBJECT-TYPE
 SYNTAX Counter32
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "Number of Accounting-Request messages
 sent to the peer."
 ::= { dbpPerPeerStatsEntry 12 }

dbpPerPeerStatsACAsIn OBJECT-TYPE
 SYNTAX Counter32
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "Number of Accounting-Answer messages
 received from the peer."
 ::= { dbpPerPeerStatsEntry 13 }

dbpPerPeerStatsACAsOut OBJECT-TYPE
 SYNTAX Counter32
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "Number of Accounting-Answer messages
 sent to the peer."
 ::= { dbpPerPeerStatsEntry 14 }

dbpPerPeerStatsCERsIn OBJECT-TYPE
 SYNTAX Counter32
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "Number of Capabilities-Exchange-Request
 messages received from the peer."
 ::= { dbpPerPeerStatsEntry 15 }

dbpPerPeerStatsCERsOut OBJECT-TYPE
 SYNTAX Counter32
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION


```
        "Number of Capabilities-Exchange-Request
        messages sent to the peer."
 ::= { dbpPerPeerStatsEntry 16 }
```

dbpPerPeerStatsCEAsIn OBJECT-TYPE

```
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Number of Capabilities-Exchange-Answer
    messages received from the peer."
 ::= { dbpPerPeerStatsEntry 17 }
```

dbpPerPeerStatsCEAsOut OBJECT-TYPE

```
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Number of Capabilities-Exchange-Answer
    messages sent to the peer."
 ::= { dbpPerPeerStatsEntry 18 }
```

dbpPerPeerStatsDWRsIn OBJECT-TYPE

```
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Number of Device-Watchdog-Request
    messages received from the peer."
 ::= { dbpPerPeerStatsEntry 19 }
```

dbpPerPeerStatsDWRsOut OBJECT-TYPE

```
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Number of Device-Watchdog-Request
    messages sent to the peer."
 ::= { dbpPerPeerStatsEntry 20 }
```

dbpPerPeerStatsDWAsIn OBJECT-TYPE

```
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Number of Device-Watchdog-Answer
    messages received from the peer."
 ::= { dbpPerPeerStatsEntry 21 }
```


dbpPerPeerStatsDWAsOut OBJECT-TYPE

SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
 "Number of Device-Watchdog-Answer
 messages sent to the peer."
::= { dbpPerPeerStatsEntry 22 }

dbpPerPeerStatsDPRsIn OBJECT-TYPE

SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
 "Number of Disconnect-Peer-Request messages
 received."
::= { dbpPerPeerStatsEntry 23 }

dbpPerPeerStatsDPRsOut OBJECT-TYPE

SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
 "Number of Disconnect-Peer-Request messages
 sent."
::= { dbpPerPeerStatsEntry 24 }

dbpPerPeerStatsDPAsIn OBJECT-TYPE

SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
 "Number of Disconnect-Peer-Answer messages
 received."
::= { dbpPerPeerStatsEntry 25 }

dbpPerPeerStatsDPAsOut OBJECT-TYPE

SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
 "Number of Disconnect-Peer-Answer messages
 sent."
::= { dbpPerPeerStatsEntry 26 }

dbpPerPeerStatsRARsIn OBJECT-TYPE

SYNTAX Counter32
MAX-ACCESS read-only


```
STATUS      current
DESCRIPTION
    "Number of Re-Auth-Request messages
    received."
::= { dbpPerPeerStatsEntry 27 }
```

```
dbpPerPeerStatsRARsOut OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Number of Re-Auth-Request messages
    sent."
::= { dbpPerPeerStatsEntry 28 }
```

```
dbpPerPeerStatsRAAsIn OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Number of Re-Auth-Answer messages
    received."
::= { dbpPerPeerStatsEntry 29 }
```

```
dbpPerPeerStatsRAAsOut OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Number of Re-Auth-Answer messages
    sent."
::= { dbpPerPeerStatsEntry 30 }
```

```
dbpPerPeerStatsSTRsIn OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Number of Session-Termination-Request
    messages received from the peer."
::= { dbpPerPeerStatsEntry 31 }
```

```
dbpPerPeerStatsSTRsOut OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Number of Session-Termination-Request
```


messages sent to the peer."
::= { dbpPerPeerStatsEntry 32 }

dbpPerPeerStatsSTAsIn OBJECT-TYPE

SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"Number of Session-Termination-Answer
messages received from the peer."
::= { dbpPerPeerStatsEntry 33 }

dbpPerPeerStatsSTAsOut OBJECT-TYPE

SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"Number of Session-Termination-Answer
messages sent to the peer."
::= { dbpPerPeerStatsEntry 34 }

dbpPerPeerStatsDWReqTimer OBJECT-TYPE

SYNTAX TimeTicks
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"Device-Watchdog Request Timer, which
is the interval between packets sent to
peers."
::= { dbpPerPeerStatsEntry 35 }

dbpPerPeerStatsRedirectEvents OBJECT-TYPE

SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"Redirect Event count, which is the number
of redirects sent from a peer."
::= { dbpPerPeerStatsEntry 36 }

dbpPerPeerStatsAccDupRequests OBJECT-TYPE

SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The number of duplicate Diameter Accounting-Request
packets received."
::= { dbpPerPeerStatsEntry 37 }

dbpPerPeerStatsMalformedReqsts OBJECT-TYPE

SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
 "The number of malformed Diameter
 packets received."
::= { dbpPerPeerStatsEntry 38 }

dbpPerPeerStatsAccsNotRecorded OBJECT-TYPE

SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
 "The number of Diameter Accounting-Request packets
 which were received and responded to but not
 recorded."
::= { dbpPerPeerStatsEntry 39 }

dbpPerPeerStatsAccRetrans OBJECT-TYPE

SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
 "The number of Diameter Accounting-Request packets
 retransmitted to this Diameter server."
::= { dbpPerPeerStatsEntry 40 }

dbpPerPeerStatsTotalRetrans OBJECT-TYPE

SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
 "The number of Diameter packets retransmitted
 to this Diameter server, not to include Diameter
 Accounting-Request packets retransmitted."
::= { dbpPerPeerStatsEntry 41 }

dbpPerPeerStatsAccPendReqstsOut OBJECT-TYPE

SYNTAX Gauge32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
 "The number of Diameter Accounting-Request packets
 sent to this peer that have not yet timed out or
 received a response. This variable is incremented when an
 Accounting-Request is sent to this server and decremented
 due to receipt of an Accounting-Response, a timeout or


```
        a retransmission."  
 ::= { dbpPerPeerStatsEntry 42 }
```

dbpPerPeerStatsAccReqstsDropped OBJECT-TYPE

```
SYNTAX      Counter32  
MAX-ACCESS  read-only  
STATUS      current  
DESCRIPTION  
    "The number of Accounting-Requests to this server  
    that have been dropped."  
 ::= { dbpPerPeerStatsEntry 43 }
```

dbpPerPeerStatsHByHDropMessages OBJECT-TYPE

```
SYNTAX      Counter32  
MAX-ACCESS  read-only  
STATUS      current  
DESCRIPTION  
    "An answer message that is received with an unknown  
    Hop-by-Hop Identifier. Does not include Accounting  
    Requests dropped."  
 ::= { dbpPerPeerStatsEntry 44 }
```

dbpPerPeerStatsEToEDupMessages OBJECT-TYPE

```
SYNTAX      Counter32  
MAX-ACCESS  read-only  
STATUS      current  
DESCRIPTION  
    "Duplicate answer messages that are to be locally  
    consumed. Does not include duplicate Accounting  
    Requests received."  
 ::= { dbpPerPeerStatsEntry 45 }
```

dbpPerPeerStatsUnknownTypes OBJECT-TYPE

```
SYNTAX      Counter32  
MAX-ACCESS  read-only  
STATUS      current  
DESCRIPTION  
    "The number of Diameter packets of unknown type  
    which were received."  
 ::= { dbpPerPeerStatsEntry 46 }
```

dbpPerPeerStatsProtocolErrors OBJECT-TYPE

```
SYNTAX      Counter32  
MAX-ACCESS  read-only  
STATUS      current  
DESCRIPTION  
    "Number of protocol errors returned to peer,  
    but not including redirects."
```



```
::= { dbpPerPeerStatsEntry 47 }
```

```
dbpPerPeerStatsTransientFailures OBJECT-TYPE
```

```
SYNTAX Counter32
```

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

```
STATUS current
```

```
DESCRIPTION
```

```
"Transient Failure count."
```

```
::= { dbpPerPeerStatsEntry 48 }
```

```
dbpPerPeerStatsPermanentFailures OBJECT-TYPE
```

```
SYNTAX Counter32
```

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

```
STATUS current
```

```
DESCRIPTION
```

```
"Number of permanent failures returned to peer."
```

```
::= { dbpPerPeerStatsEntry 49 }
```

```
dbpPerPeerStatsTransportDown OBJECT-TYPE
```

```
SYNTAX Counter32
```

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

```
STATUS current
```

```
DESCRIPTION
```

```
"Number of unexpected transport failures."
```

```
::= { dbpPerPeerStatsEntry 50 }
```

```
dbpRealmMessageRouteTable OBJECT-TYPE
```

```
SYNTAX SEQUENCE OF DbpRealmMessageRouteEntry
```

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

```
STATUS current
```

```
DESCRIPTION
```

```
"The table listing the Diameter  
Realm-based Message Route information."
```

```
::= { dbpRealmStats 1 }
```

```
dbpRealmMessageRouteEntry OBJECT-TYPE
```

```
SYNTAX DbpRealmMessageRouteEntry
```

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

```
STATUS current
```

```
DESCRIPTION
```

```
"A row entry representing a Diameter  
Realm Based Message Route server."
```

```
INDEX { dbpRealmMessageRouteIndex }
```

```
::= { dbpRealmMessageRouteTable 1 }
```

```
DbpRealmMessageRouteEntry ::= SEQUENCE {
```

```
    dbpRealmMessageRouteIndex      Unsigned32,  
    dbpRealmMessageRouteRealm      SnmpAdminString,
```


dbpRealmMessageRouteApp	Unsigned32,
dbpRealmMessageRouteType	INTEGER,
dbpRealmMessageRouteAction	INTEGER,
dbpRealmMessageRouteACRsIn	Counter32,
dbpRealmMessageRouteACRsOut	Counter32,
dbpRealmMessageRouteACAsIn	Counter32,
dbpRealmMessageRouteACAsOut	Counter32,
dbpRealmMessageRouteRARsIn	Counter32,
dbpRealmMessageRouteRARsOut	Counter32,
dbpRealmMessageRouteRAAsIn	Counter32,
dbpRealmMessageRouteRAAsOut	Counter32,
dbpRealmMessageRouteSTRsIn	Counter32,
dbpRealmMessageRouteSTRsOut	Counter32,
dbpRealmMessageRouteSTAsIn	Counter32,
dbpRealmMessageRouteSTAsOut	Counter32,
dbpRealmMessageRouteASRsIn	Counter32,
dbpRealmMessageRouteASRsOut	Counter32,
dbpRealmMessageRouteASAsIn	Counter32,
dbpRealmMessageRouteASAsOut	Counter32,
dbpRealmMessageRouteAccRetrans	Counter32,
dbpRealmMessageRouteAccDupReqsts	Counter32,
dbpRealmMessageRoutePendReqstsOut	Gauge32,
dbpRealmMessageRouteReqstsDrop	Counter32 }

dbpRealmMessageRouteIndex OBJECT-TYPE

SYNTAX Unsigned32 (1..4294967295)

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"A number uniquely identifying each Realm."

::= { dbpRealmMessageRouteEntry 1 }

dbpRealmMessageRouteRealm OBJECT-TYPE

SYNTAX SnmpAdminString

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"Realm name"

::= { dbpRealmMessageRouteEntry 2 }

dbpRealmMessageRouteApp OBJECT-TYPE

SYNTAX Unsigned32 (1..4294967295)

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"Application id used to route packets
to this realm."

::= { dbpRealmMessageRouteEntry 3 }

dbpRealmMessageRouteType OBJECT-TYPE

SYNTAX INTEGER { acct(1),
auth(2),
both(3) }

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The types of service supported for each
realm application: accounting,
authentication or both."

::= { dbpRealmMessageRouteEntry 4 }

dbpRealmMessageRouteAction OBJECT-TYPE

SYNTAX INTEGER { local(1),
relay(2),
proxy(3),
redirect(4) }

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The action is used to identify how a
message should be treated based on the realm,
application and type.

- local - Diameter messages that resolve to a
route entry with the Local Action set to
Local can be satisfied locally, and do
not need to be routed to another server.
- relay - All Diameter messages that fall within
this category MUST be routed to a
next-hop server, without modifying any
non-routing AVPs.
- proxy - All Diameter messages that fall within this
category MUST be routed to a next-hop
server.
- redirect - Diameter messages that fall within this
category MUST have the identity of the home
Diameter server(s) appended, and returned
to the sender of the message."

::= { dbpRealmMessageRouteEntry 5 }

dbpRealmMessageRouteACRsIn OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"Number of Accounting-Request messages
received from the realm."

::= { dbpRealmMessageRouteEntry 6 }


```
dbpRealmMessageRouteACRsOut OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Number of Accounting-Request messages
         sent to the realm."
    ::= { dbpRealmMessageRouteEntry 7 }

dbpRealmMessageRouteACAsIn OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Number of Accounting-Answer messages
         received from the realm."
    ::= { dbpRealmMessageRouteEntry 8 }

dbpRealmMessageRouteACAsOut OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Number of Accounting-Answer messages
         sent to the realm."
    ::= { dbpRealmMessageRouteEntry 9 }

dbpRealmMessageRouterARsIn OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Number of Re-Auth-Request messages
         received from the realm."
    ::= { dbpRealmMessageRouteEntry 10 }

dbpRealmMessageRouterARsOut OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Number of Re-Auth-Request messages
         sent to the realm."
    ::= { dbpRealmMessageRouteEntry 11 }

dbpRealmMessageRouterAAsIn OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
```


STATUS current
DESCRIPTION
"Number of Re-Auth-Answer messages
received from the realm."
::= { dbpRealmMessageRouteEntry 12 }

dbpRealmMessageRouteRAAsOut OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"Number of Re-Auth-Answer messages
sent to the realm."
::= { dbpRealmMessageRouteEntry 13 }

dbpRealmMessageRouteSTRsIn OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"Number of Session-Termination-Request messages
received from the realm."
::= { dbpRealmMessageRouteEntry 14 }

dbpRealmMessageRouteSTRsOut OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"Number of Session-Termination-Request messages
sent to the realm."
::= { dbpRealmMessageRouteEntry 15 }

dbpRealmMessageRouteSTAsIn OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"Number of Session-Termination-Answer messages
received from the realm."
::= { dbpRealmMessageRouteEntry 16 }

dbpRealmMessageRouteSTAsOut OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"Number of Session-Termination-Answer messages

sent to the realm."
 ::= { dbpRealmMessageRouteEntry 17 }

dbpRealmMessageRouteASRsIn OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"Number of Abort-Session-Request messages
received from the realm."
 ::= { dbpRealmMessageRouteEntry 18 }

dbpRealmMessageRouteASRsOut OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"Number of Abort-Session-Request messages
sent to the realm."
 ::= { dbpRealmMessageRouteEntry 19 }

dbpRealmMessageRouteASAsIn OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"Number of Abort-Session-Answer messages
received from the realm."
 ::= { dbpRealmMessageRouteEntry 20 }

dbpRealmMessageRouteASAsOut OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"Number of Abort-Session-Answer messages
sent to the realm."
 ::= { dbpRealmMessageRouteEntry 21 }

dbpRealmMessageRouteAccRetrans OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"The number of Diameter accounting packets
retransmitted to this realm."
 ::= { dbpRealmMessageRouteEntry 22 }

dbpRealmMessageRouteAccDupReqsts OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The number of duplicate Diameter accounting packets sent to this realm."

::= { dbpRealmMessageRouteEntry 23 }

dbpRealmMessageRoutePendReqstsOut OBJECT-TYPE

SYNTAX Gauge32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The number of Diameter Accounting-Request packets sent to this peer that have not yet timed out or received a response. This variable is incremented when an Accounting-Request is sent to this server and decremented due to receipt of an Accounting-Response, a timeout or a retransmission."

::= { dbpRealmMessageRouteEntry 24 }

dbpRealmMessageRouteReqstsDrop OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The number of requests dropped by this realm."

::= { dbpRealmMessageRouteEntry 25 }

dbpRealmKnownPeersTable OBJECT-TYPE

SYNTAX SEQUENCE OF DbpRealmKnownPeersEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"The table listing the Diameter Realms and known peers."

::= { dbpRealmCfgs 1 }

dbpRealmKnownPeersEntry OBJECT-TYPE

SYNTAX DbpRealmKnownPeersEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"A row entry representing a Diameter Realm and known peers."

INDEX { dbpRealmMessageRouteIndex,
dbpRealmKnownPeersIndex }


```
::= { dbpRealmKnownPeersTable 1 }
```

```
DbpRealmKnownPeersEntry ::= SEQUENCE {  
    dbpRealmKnownPeersIndex          Unsigned32,  
    dbpRealmKnownPeers              Unsigned32,  
    dbpRealmKnownPeersChosen        INTEGER }
```

```
dbpRealmKnownPeersIndex OBJECT-TYPE  
    SYNTAX      Unsigned32 (1..4294967295)  
    MAX-ACCESS  not-accessible  
    STATUS      current  
    DESCRIPTION  
        "A sequential identifier number."  
    ::= { dbpRealmKnownPeersEntry 1 }
```

```
dbpRealmKnownPeers OBJECT-TYPE  
    SYNTAX      Unsigned32 (1..4294967295)  
    MAX-ACCESS  read-only  
    STATUS      current  
    DESCRIPTION  
        "The index of the peer this realm knows about.  
        This is an ordered list, where the ordering  
        signifies the order in which the peers are  
        tried. Same as the dbpPeerIndex"  
    ::= { dbpRealmKnownPeersEntry 2 }
```

```
dbpRealmKnownPeersChosen OBJECT-TYPE  
    SYNTAX      INTEGER { roundRobin(1),  
                          loadBalance(2),  
                          firstPreferred(3),  
                          mostRecentFirst(4),  
                          other(5) }  
    MAX-ACCESS  read-only  
    STATUS      current  
    DESCRIPTION  
        "How the realm chooses which peer to send  
        packets to.  
        roundRobin      - The peer used for each transaction  
                          is selected based on the order in  
                          which peers are configured.  
        loadBalance     - The peer used for each transaction  
                          is based on the load metric (maybe  
                          implementation dependent) of all  
                          peers defined for the realm, with  
                          the least loaded server selected  
                          first.  
        firstPreferred  - The first defined server is always  
                          used for transactions unless
```



```

        failover occurs.
    mostRecentFirst - The most recently used server is
        used first for each transaction."
    ::= { dbpRealmKnownPeersEntry 3 }

-- -- Conformance -- dbpMIBCompliances

diameterBaseProtocolMIBCompliances
    OBJECT IDENTIFIER ::= { diameterBaseConform 1 }

diameterBaseProtocolMIBGroups
    OBJECT IDENTIFIER ::= { diameterBaseConform 2 }

-- -- Compliance Statements --

diameterBaseProtocolCompliance MODULE-COMPLIANCE
    STATUS      current
    DESCRIPTION
        "The compliance statement for Diameter Base
        Protocol entities."
    MODULE -- this module
        MANDATORY-GROUPS { dbpLocalCfgGroup,
                            dbpPeerCfgGroup,
                            dbpPeerStatsGroup,
                            dbpNotificationsGroup,
                            dbpNotifCfgGroup }

        GROUP          dbpLocalCfgSkippedGroup
    DESCRIPTION
        "This group is only mandatory for a system that
        implements all the local config objects."

        GROUP          dbpLocalStatsSkippedGroup
    DESCRIPTION
        "This group is only mandatory for a system that
        implements all the local statistics objects."

        GROUP          dbpPeerCfgSkippedGroup
    DESCRIPTION
        "This group is only mandatory for a system that
        implements all the peer config objects."

        GROUP          dbpPeerStatsSkippedGroup
    DESCRIPTION
        "This group is only mandatory for a system that
        implements all the peer statistic objects."

        GROUP          dbpRealmCfgSkippedGroup
```


DESCRIPTION

"This group is only mandatory for a system that implements all the realm config objects."

GROUP dbpPMIBRealmStatsSkippedGroup

DESCRIPTION

"This group is only mandatory for a system that implements all the realm statistic objects."

::= { diameterBaseProtocolCompliances 1 }

-- -- Units of Conformance --

dbpLocalCfgGroup OBJECT-GROUP

OBJECTS {

dbpLocalRealm,
dbpLocalOriginHost,
dbpLocalVendorId,
dbpLocalVendorStorageType,
dbpLocalVendorRowStatus

}

STATUS current

DESCRIPTION

"A collection of objects providing configuration common to the server."

::= { diameterBaseProtocolMIBGroups 1 }

dbpPeerCfgGroup OBJECT-GROUP

OBJECTS {

dbpPeerId,
dbpPeerPortConnect,
dbpPeerPortListen,
dbpPeerProtocol,
dbpPeerSecurity,
dbpPeerFirmwareRevision,
dbpPeerStorageType,
dbpPeerRowStatus,
dbpPeerIpAddressType,
dbpPeerIpAddress,
dbpPeerVendorId,
dbpPeerVendorStorageType,
dbpPeerVendorRowStatus

}

STATUS current

DESCRIPTION

"A collection of objects providing configuration of the Diameter peers."

::= { diameterBaseProtocolMIBGroups 2 }

dbpPeerStatsGroup OBJECT-GROUP

```
OBJECTS {
    dbpPeerStatsState,
    dbpPeerStatsStateDuration,
    dbpPeerStatsLastDiscCause,
    dbpPeerStatsWhoInitDisconnect,
    dbpPeerStatsDWCurrentStatus,
    dbpPeerStatsTimeoutConnAtmpts,
    dbpPeerStatsASRsIn,
    dbpPeerStatsASRsOut,
    dbpPeerStatsASAsIn,
    dbpPeerStatsASAsOut,
    dbpPeerStatsACRsIn,
    dbpPeerStatsACRsOut,
    dbpPeerStatsACAsIn,
    dbpPeerStatsACAsOut,
    dbpPeerStatsCERsIn,
    dbpPeerStatsCERsOut,
    dbpPeerStatsCEAsIn,
    dbpPeerStatsCEAsOut,
    dbpPeerStatsDWRsIn,
    dbpPeerStatsDWRsOut,
    dbpPeerStatsDWAsIn,
    dbpPeerStatsDWAsOut,
    dbpPeerStatsDPRsIn,
    dbpPeerStatsDPRsOut,
    dbpPeerStatsDPAsIn,
    dbpPeerStatsDPAsOut,
    dbpPeerStatsRARsIn,
    dbpPeerStatsRARsOut,
    dbpPeerStatsRAAsIn,
    dbpPeerStatsRAAsOut,
    dbpPeerStatsSTRsIn,
    dbpPeerStatsSTRsOut,
    dbpPeerStatsSTAsIn,
    dbpPeerStatsSTAsOut,
    dbpPeerStatsDWReqTimer,
    dbpPeerStatsRedirectEvents,
    dbpPeerStatsAccDupRequests,
    dbpPeerStatsMalformedReqsts,
    dbpPeerStatsAccsNotRecorded,
    dbpPeerStatsAccRetrans,
    dbpPeerStatsTotalRetrans,
    dbpPeerStatsAccPendReqstsOut,
    dbpPeerStatsAccReqstsDropped,
    dbpPeerStatsSHByHDropMessages,
    dbpPeerStatsEToEDupMessages,
    dbpPeerStatsUnknownTypes,
```



```
        dbpPeerStatsProtocolErrors,
        dbpPeerStatsTransientFailures,
        dbpPeerStatsPermanentFailures,
        dbpPeerStatsTransportDown
    }
    STATUS          current
    DESCRIPTION
        "A collection of objects providing statistics
        of the Diameter peers."
    ::= { diameterBaseProtocolMIBGroups 3 }

dbpNotificationsGroup NOTIFICATION-GROUP
    NOTIFICATIONS   {
        dbpProtocolErrorNotif,
        dbpTransientFailureNotif,
        dbpPermanentFailureNotif,
        dbpPeerConnectionDownNotif,
        dbpPeerConnectionUpNotif
    }
    STATUS          current
    DESCRIPTION
        "The set of notifications which an agent is required
        to implement."
    ::= { diameterBaseProtocolMIBGroups 4 }

dbpNotifCfgGroup OBJECT-GROUP
    OBJECTS         {
        dbpProtocolErrorNotifEnabled,
        dbpTransientFailureNotifEnabled,
        dbpPermanentFailureNotifEnabled,
        dbpPeerConnectionDownNotifEnabled,
        dbpPeerConnectionUpNotifEnabled
    }
    STATUS          current
    DESCRIPTION
        "A collection of objects providing configuration for
        base protocol notifications."
    ::= { diameterBaseProtocolMIBGroups 5 }

dbpLocalCfgSkippedGroup OBJECT-GROUP
    OBJECTS         {
        dbpLocalId,
        dbpLocalIpAddrType,
        dbpLocalIpAddress,
        dbpLocalTcpListenPort,
        dbpLocalSctpListenPort,
        dbpLocalStatsTotalPacketsIn,
        dbpLocalStatsTotalPacketsOut,
```



```
        dbpLocalStatsTotalUpTime,
        dbpLocalResetTime,
        dbpLocalConfigReset,
        dbpLocalApplStorageType,
        dbpLocalApplRowStatus,
        dbpAppAdvToPeerServices,
        dbpAppAdvToPeerStorageType,
        dbpAppAdvToPeerRowStatus
    }
    STATUS          current
    DESCRIPTION
        "A collection of objects providing configuration common
        to the server."
    ::= { diameterBaseProtocolMIBGroups 6 }

dbpLocalStatsSkippedGroup OBJECT-GROUP
    OBJECTS          {
        dbpLocalStatsTotalPacketsIn,
        dbpLocalStatsTotalPacketsOut,
        dbpLocalStatsTotalUpTime,
        dbpLocalResetTime,
        dbpLocalConfigReset
    }
    STATUS          current
    DESCRIPTION
        "A collection of objects providing statistics common
        to the server."
    ::= { diameterBaseProtocolMIBGroups 7 }

dbpPeerCfgSkippedGroup OBJECT-GROUP
    OBJECTS          { cdbpAppAdvFromPeerType }
    STATUS          current
    DESCRIPTION
        "A collection of objects providing configuration for
        Diameter peers."
    ::= { diameterBaseProtocolMIBGroups 8 }

dbpPeerStatsSkippedGroup OBJECT-GROUP
    OBJECTS          {
        dbpPeerStatsDWCurrentStatus,
        dbpPeerStatsDWReqTimer,
        dbpPeerStatsRedirectEvents,
        dbpPeerStatsAccDupRequests,
        dbpPeerStatsEToEDupMessages
    }
    STATUS          current
    DESCRIPTION
        "A collection of objects providing statistics
```



```
        of Diameter peers."
 ::= { diameterBaseProtocolMIBGroups 9 }

dbpRealmCfgSkippedGroup OBJECT-GROUP
    OBJECTS      {
        dbpRealmKnownPeers,
        dbpRealmKnownPeersChosen
    }
    STATUS        current
    DESCRIPTION   "A collection of objects providing configuration for
        realm message routing."
 ::= { diameterBaseProtocolMIBGroups 10 }

dbpRealmStatsSkippedGroup OBJECT-GROUP
    OBJECTS      {
        dbpRealmMessageRouteRealm,
        dbpRealmMessageRouteApp,
        dbpRealmMessageRouteType,
        dbpRealmMessageRouteAction,
        dbpRealmMessageRouteACRsIn,
        dbpRealmMessageRouteACRsOut,
        dbpRealmMessageRouteACAsIn,
        dbpRealmMessageRouteACAsOut,
        dbpRealmMessageRouteRARsIn,
        dbpRealmMessageRouteRARsOut,
        dbpRealmMessageRouteRAAsIn,
        dbpRealmMessageRouteRAAsOut,
        dbpRealmMessageRouteSTRsIn,
        dbpRealmMessageRouteSTRsOut,
        dbpRealmMessageRouteSTAsIn,
        dbpRealmMessageRouteSTAsOut,
        dbpRealmMessageRouteASRsIn,
        dbpRealmMessageRouteASRsOut,
        dbpRealmMessageRouteASAsIn,
        dbpRealmMessageRouteASAsOut,
        dbpRealmMessageRouteAccRetrans,
        dbpRealmMessageRouteAccDupReqsts,
        dbpRealmMessageRoutePendReqstsOut,
        dbpRealmMessageRouteReqstsDrop
    }
    STATUS        current
    DESCRIPTION   "A collection of objects providing statistics
        of realm message routing."
 ::= { diameterBaseProtocolMIBGroups 11 }
```

END

5. IANA Considerations

IANA is requested to assign an OID under mib-2.

6. Security Considerations

There are managed objects defined in this MIB that have a MAX-ACCESS clause of read-write and/or read-create. Such objects may be considered sensitive or vulnerable in some network environments. The support for SET operations in a non-secure environment without proper protection can have a negative effect on network operations.

There are a number of managed objects in this MIB that may contain sensitive information. These are:

- o diameterHostAddress
- o diameterPeerServerAddress
- o diameterPeerIpAddress

These can be used to determine the address of the Diameter host, and/or peers with which the host is communicating. This information could be useful in impersonating the host or peer.

It is important to control GET access to these objects and possibly to even encrypt the values of these object when sending them over the network via SNMP. Not all versions of SNMP provide features for such a secure environment.

SNMPv1 by itself is not a secure environment. Even if the network itself is secure (for example by using IPSec), there is no control as to who on the secure network is allowed to access and GET (read) the objects in this MIB.

It is recommended that the implementers consider the security features as provided by the SNMPv3 framework. Specifically, the use of the User-based Security Model [[RFC3414](#)] and the View-based Access Control Model [[RFC3415](#)] is recommended.

It is then a customer/user responsibility to ensure that the SNMP entity giving access to an instance of this MIB, is properly configured to give access to the objects only to those principals (users) that have legitimate rights to indeed GET or SET (change/create/delete) them.

7. Contributors

This document is based upon and derived from work done by Jay Koehler, Mark Eklund and Hai Li.

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