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RADIUS Auth Server MIB (IPv6)
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Abstract

This memo updates [RFC 2619](#) by deprecating the MIB table containing IPv4-only address formats and defining a new table to add support for version neutral IP address formats.

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RADIUS Auth Server MIB (IPv6)

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1. Terminology

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 [RFC 2119](#) [[RFC2119](#)].

This document uses terminology from [RFC 2865](#) [[RFC2865](#)].

2. Introduction

This memo defines a portion of the Management Information Base (MIB) for use with network management protocols in the Internet community. The objects defined within this memo relate to the Remote Authentication Dial-In User Service (RADIUS) Authentication Server as defined in [RFC 2865](#) [[RFC2865](#)].

3. 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](#)].

4. Scope of Changes

This document updates [RFC 2619](#) [[RFC2619](#)], RADIUS Authentication Server MIB, by deprecating the radiusAuthClientTable table and adding a new table, radiusAuthClientExtTable, containing radiusAuthClientInetAddressType and radiusAuthClientInetAddress. The purpose of these added MIB objects is to support version neutral IP addressing formats. The existing table containing radiusAuthClientAddress is deprecated.

[RFC 4001](#) [[RFC4001](#)], which defines the SMI Textual Conventions for version neutral IP addresses, contains the following recommendation.

'In particular, when revising a MIB module that contains IPv4

specific tables, it is suggested to define new tables using the textual conventions defined in this memo [[RFC 4001](#)] that support all versions of IP. The status of the new tables SHOULD be "current", whereas the status of the old IP version specific tables SHOULD be changed to "deprecated". The other approach, of having multiple similar tables for different IP versions, is strongly discouraged.'

[5.](#) Structure of the MIB Module

The structure of the MIB Module defined in this memo corresponds to the structure of the MIB Module defined in RADIUS Authentication Server MIB, [RFC 2619](#) [[RFC2619](#)]. This MIB module contains fourteen scalars as well as a single table, the RADIUS Authentication Client Table, which contains one row for each RADIUS authentication client with which the server shares a secret.

Each entry in the RADIUS Authentication Client Table includes thirteen columns presenting a view of the activity of the RADIUS authentication server.

[6.](#) Deprecated Objects

The deprecated table in this MIB is carried forward from [RFC 2619](#) [[RFC2619](#)]. There are two conditions under which it MAY be desirable for managed entities to continue to support the deprecated table:

1. The managed entity only supports IPv4 address formats.

2. The managed entity supports both IPv4 and IPv6 address formats, and the deprecated table is supported for backwards compatibility with older management stations. This option SHOULD only be used when the IP addresses in the new table are in IPv4 format and can accurately be represented in both the new table and the deprecated table.

Managed entities SHOULD NOT instantiate the deprecated table containing IPv4-only address objects when the RADIUS server address represented in the table row is not an IPv4 address. Managed entities SHOULD NOT return inaccurate values of IP address or SNMP object access errors for IPv4-only address objects in otherwise populated tables.

[7.](#) Definitions

4. Definitions

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```
RADIUS-AUTH-SERVER-MIB DEFINITIONS ::= BEGIN
```

```
IMPORTS
```

```
    MODULE-IDENTITY, OBJECT-TYPE, OBJECT-IDENTITY,  
    Counter32, Integer32,  
    IpAddress, TimeTicks, mib-2          FROM SNMPv2-SMI  
    SnmpAdminString                     FROM SNMP-FRAMEWORK-MIB  
    InetAddressType, InetAddress       FROM INET-ADDRESS-MIB  
    MODULE-COMPLIANCE, OBJECT-GROUP    FROM SNMPv2-CONF;
```

```
radiusAuthServMIB MODULE-IDENTITY
```

```
    LAST-UPDATED "20050830000Z" -- 30 Aug 2005  
    ORGANIZATION "IETF RADIUS Extensions Working Group."  
    CONTACT-INFO  
        " Bernard Aboba  
        Microsoft  
        One Microsoft Way  
        Redmond, WA 98052  
        US  
        Phone: +1 425 936 6605  
        EMail: bernarda@microsoft.com"
```

```
DESCRIPTION
```

```
        "The MIB module for entities implementing the server
        side of the Remote Authentication Dial-In User
        Service (RADIUS) authentication protocol."
    REVISION "9906110000Z"    -- 11 Jun 1999
    DESCRIPTION "Initial version as published in RFC 2619"
    REVISION "200508300000Z"  -- 30 Aug 2005
    DESCRIPTION "Revised version as published in RFC xxxx."

-- RFC Editor: replace xxxx with actual RFC number at the time of
-- publication, and remove this note.
```

```
 ::= { radiusAuthentication 1 }
```

```
radiusMIB OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "The OID assigned to RADIUS MIB work by the IANA."
    ::= { mib-2 67 }
```

```
radiusAuthServerExtMIB OBJECT-IDENTITY
    STATUS current
    DESCRIPTION
        "The OID assigned to RADIUS Extensions MIB
        work by the IANA."
    ::= { mib-2 TBA }
```

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```
-- RFC Editor: replace TBA with IANA assigned OID value, and
-- remove this note.
```

```
radiusAuthentication OBJECT IDENTIFIER ::= {radiusMIB 1}
```

```
radiusAuthServMIBObjects OBJECT IDENTIFIER
    ::= { radiusAuthServMIB 1 }
```

```
radiusAuthServ OBJECT IDENTIFIER
    ::= { radiusAuthServMIBObjects 1 }
```

```
radiusAuthServerExtMIBNotifications OBJECT IDENTIFIER
    ::= { radiusAuthServerExtMIB 0 }
```

radiusAuthServerExtMIBObjects OBJECT IDENTIFIER
 ::= { radiusAuthServerExtMIB 1 }

radiusAuthServIdent OBJECT-TYPE
 SYNTAX SnmpAdminString
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "The implementation identification string for the
 RADIUS authentication server software in use on the
 system, for example; `FNS-2.1`"
 ::= {radiusAuthServ 1}

radiusAuthServUpTime OBJECT-TYPE
 SYNTAX TimeTicks
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "If the server has a persistent state (e.g., a
 process), this value will be the time elapsed (in
 hundredths of a second) since the server process
 was started. For software without persistent state,
 this value will be zero."
 ::= {radiusAuthServ 2}

radiusAuthServResetTime OBJECT-TYPE
 SYNTAX TimeTicks
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "If the server has a 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."
 ::= {radiusAuthServ 3}

radiusAuthServConfigReset OBJECT-TYPE
 SYNTAX INTEGER { other(1),

```
                reset(2),
                initializing(3),
                running(4)}
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(3) - server (re)initializing;
        running(4) - server currently running."
 ::= {radiusAuthServ 4}
```

```
radiusAuthServTotalAccessRequests OBJECT-TYPE
    SYNTAX Counter32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of packets received on the
        authentication port."
    ::= { radiusAuthServ 5}
```

```
radiusAuthServTotalInvalidRequests OBJECT-TYPE
    SYNTAX Counter32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of RADIUS Access-Request packets
        received from unknown addresses."
    ::= { radiusAuthServ 6 }
```

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



```

        packets received."
 ::= { radiusAuthServ 7 }

radiusAuthServTotalAccessAccepts OBJECT-TYPE
    SYNTAX Counter32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of RADIUS Access-Accept packets sent."
 ::= { radiusAuthServ 8 }

radiusAuthServTotalAccessRejects OBJECT-TYPE
    SYNTAX Counter32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of RADIUS Access-Reject packets sent."
 ::= { radiusAuthServ 9 }

radiusAuthServTotalAccessChallenges OBJECT-TYPE
    SYNTAX Counter32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of RADIUS Access-Challenge packets sent."
 ::= { radiusAuthServ 10 }

radiusAuthServTotalMalformedAccessRequests OBJECT-TYPE
    SYNTAX Counter32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of malformed RADIUS Access-Request
        packets received. Bad authenticators
        and unknown types are not included as
        malformed Access-Requests."
 ::= { radiusAuthServ 11 }

radiusAuthServTotalBadAuthenticators OBJECT-TYPE
    SYNTAX Counter32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of RADIUS Authentication-Request packets
        which contained invalid Message Authenticator
        attributes received."
 ::= { radiusAuthServ 12 }

```

radiusAuthServTotalPacketsDropped OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The number of incoming packets
silently discarded for some reason other
than malformed, bad authenticators or
unknown types."

::= { radiusAuthServ 13 }

radiusAuthServTotalUnknownTypes OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The number of RADIUS packets of unknown type which
were received."

::= { radiusAuthServ 14 }

radiusAuthClientTable OBJECT-TYPE

SYNTAX SEQUENCE OF RadiusAuthClientEntry

MAX-ACCESS not-accessible

STATUS deprecated

DESCRIPTION

"The (conceptual) table listing the RADIUS
authentication clients with which the server shares
a secret."

::= { radiusAuthServ 15 }

radiusAuthClientEntry OBJECT-TYPE

SYNTAX RadiusAuthClientEntry

MAX-ACCESS not-accessible

STATUS deprecated

DESCRIPTION

"An entry (conceptual row) representing a RADIUS
authentication client with which the server shares a
secret."

INDEX { radiusAuthClientIndex }

::= { radiusAuthClientTable 1 }

RadiusAuthClientEntry ::= SEQUENCE {

radiusAuthClientIndex

radiusAuthClientAddress

Integer32,

IpAddress,

radiusAuthClientID
radiusAuthServAccessRequests

SnmpAdminString,
Counter32,

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radiusAuthServDupAccessRequests Counter32,
radiusAuthServAccessAccepts Counter32,
radiusAuthServAccessRejects Counter32,
radiusAuthServAccessChallenges Counter32,
radiusAuthServMalformedAccessRequests Counter32,
radiusAuthServBadAuthenticators Counter32,
radiusAuthServPacketsDropped Counter32,
radiusAuthServUnknownTypes Counter32

}

radiusAuthClientIndex OBJECT-TYPE

SYNTAX Integer32 (1..2147483647)

MAX-ACCESS not-accessible

STATUS deprecated

DESCRIPTION

"A number uniquely identifying each RADIUS authentication client with which this server communicates."

::= { radiusAuthClientEntry 1 }

radiusAuthClientAddress OBJECT-TYPE

SYNTAX IPAddress

MAX-ACCESS read-only

STATUS deprecated

DESCRIPTION

"The NAS-IP-Address of the RADIUS authentication client referred to in this table entry."

::= { radiusAuthClientEntry 2 }

radiusAuthClientID OBJECT-TYPE

SYNTAX SnmpAdminString

MAX-ACCESS read-only

STATUS deprecated

DESCRIPTION

"The NAS-Identifier of the RADIUS authentication client referred to in this table entry. This is not necessarily the same as sysName in MIB II."

::= { radiusAuthClientEntry 3 }

-- Server Counters

--

-- Responses = AccessAccepts + AccessRejects + AccessChallenges

--

-- Requests - DupRequests - BadAuthenticators - MalformedRequests -

-- UnknownTypes - PacketsDropped - Responses = Pending

--

-- Requests - DupRequests - BadAuthenticators - MalformedRequests -

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-- UnknownTypes - PacketsDropped = entries logged

radiusAuthServAccessRequests OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS deprecated

DESCRIPTION

"The number of packets received on the authentication
port from this client."

::= { radiusAuthClientEntry 4 }

radiusAuthServDupAccessRequests OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS deprecated

DESCRIPTION

"The number of duplicate RADIUS Access-Request
packets received from this client."

::= { radiusAuthClientEntry 5 }

radiusAuthServAccessAccepts OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS deprecated

DESCRIPTION

"The number of RADIUS Access-Accept packets
sent to this client."

::= { radiusAuthClientEntry 6 }

radiusAuthServAccessRejects OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS deprecated
DESCRIPTION
 "The number of RADIUS Access-Reject packets
 sent to this client."
 ::= { radiusAuthClientEntry 7 }

radiusAuthServAccessChallenges OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS deprecated
DESCRIPTION
 "The number of RADIUS Access-Challenge packets
 sent to this client."
 ::= { radiusAuthClientEntry 8 }

radiusAuthServMalformedAccessRequests OBJECT-TYPE

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SYNTAX Counter32
MAX-ACCESS read-only
STATUS deprecated
DESCRIPTION
 "The number of malformed RADIUS Access-Request
 packets received from this client.
 Bad authenticators and unknown types are not included
 as malformed Access-Requests."
 ::= { radiusAuthClientEntry 9 }

radiusAuthServBadAuthenticators OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS deprecated
DESCRIPTION
 "The number of RADIUS Authentication-Request packets
 which contained invalid Message Authenticator
 attributes received from this client."
 ::= { radiusAuthClientEntry 10 }

radiusAuthServPacketsDropped OBJECT-TYPE
SYNTAX Counter32
MAX-ACCESS read-only
STATUS deprecated
DESCRIPTION

"The number of incoming packets from this client silently discarded for some reason other than malformed, bad authenticators or unknown types."

::= { radiusAuthClientEntry 11 }

radiusAuthServUnknownTypes OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS deprecated

DESCRIPTION

"The number of RADIUS packets of unknown type which were received from this client."

::= { radiusAuthClientEntry 12 }

-- new table

radiusAuthClientExtTable OBJECT-TYPE

SYNTAX SEQUENCE OF RadiusAuthClientExtEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"The (conceptual) table listing the RADIUS

authentication clients with which the server shares a secret."

::= { radiusAuthServerExtMIBObjects 1 }

radiusAuthClientExtEntry OBJECT-TYPE

SYNTAX RadiusAuthClientExtEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"An entry (conceptual row) representing a RADIUS authentication client with which the server shares a secret."

INDEX { radiusAuthClientExtIndex }

::= { radiusAuthClientExtTable 1 }

RadiusAuthClientExtEntry ::= SEQUENCE {

radiusAuthClientExtIndex

radiusAuthClientInetAddressType

Integer32,

InetAddressType,

```

radiusAuthClientInetAddress      InetAddress,
radiusAuthClientExtID           SnmpAdminString,
radiusAuthServExtAccessRequests Counter32,
radiusAuthServExtDupAccessRequests Counter32,
radiusAuthServExtAccessAccepts Counter32,
radiusAuthServExtAccessRejects Counter32,
radiusAuthServExtAccessChallenges Counter32,
radiusAuthServExtMalformedAccessRequests Counter32,
radiusAuthServExtBadAuthenticators Counter32,
radiusAuthServExtPacketsDropped Counter32,
radiusAuthServExtUnknownTypes Counter32
}

```

```

radiusAuthClientExtIndex OBJECT-TYPE
    SYNTAX      Integer32 (1..2147483647)
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A number uniquely identifying each RADIUS
         authentication client with which this server
         communicates."
    ::= { radiusAuthClientExtEntry 1 }

```

```

radiusAuthClientInetAddressType OBJECT-TYPE
    SYNTAX      InetAddressType
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The type of address format used for the

```

```

        radiusAuthClientInetAddress object."
    ::= { radiusAuthClientExtEntry 2 }

```

```

radiusAuthClientInetAddress OBJECT-TYPE
    SYNTAX      InetAddress
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The IP address of the RADIUS authentication
         client referred to in this table entry, using
         the version neutral IP address format."

```

```
 ::= { radiusAuthClientExtEntry 3 }
```

```
radiusAuthClientExtID OBJECT-TYPE
```

```
SYNTAX      SnmpAdminString
```

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

```
STATUS      current
```

```
DESCRIPTION
```

```
    "The NAS-Identifier of the RADIUS authentication client
       referred to in this table entry. This is not
       necessarily the same as sysName in MIB II."
```

```
 ::= { radiusAuthClientExtEntry 4 }
```

```
-- Server Counters
```

```
--
```

```
-- Responses = AccessAccepts + AccessRejects + AccessChallenges
```

```
--
```

```
-- Requests - DupRequests - BadAuthenticators - MalformedRequests -
```

```
-- UnknownTypes - PacketsDropped - Responses = Pending
```

```
--
```

```
-- Requests - DupRequests - BadAuthenticators - MalformedRequests -
```

```
-- UnknownTypes - PacketsDropped = entries logged
```

```
radiusAuthServExtAccessRequests OBJECT-TYPE
```

```
SYNTAX Counter32
```

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

```
STATUS      current
```

```
DESCRIPTION
```

```
    "The number of packets received on the authentication
       port from this client."
```

```
 ::= { radiusAuthClientExtEntry 5 }
```

```
radiusAuthServExtDupAccessRequests OBJECT-TYPE
```

```
SYNTAX Counter32
```

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

```
STATUS      current
```

```
DESCRIPTION
```

```
    "The number of duplicate RADIUS Access-Request
       packets received from this client."
```

```
 ::= { radiusAuthClientExtEntry 6 }
```



```

radiusAuthServExtAccessAccepts OBJECT-TYPE
    SYNTAX Counter32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of RADIUS Access-Accept packets
        sent to this client."
    ::= { radiusAuthClientExtEntry 7 }

radiusAuthServExtAccessRejects OBJECT-TYPE
    SYNTAX Counter32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of RADIUS Access-Reject packets
        sent to this client."
    ::= { radiusAuthClientExtEntry 8 }

radiusAuthServExtAccessChallenges OBJECT-TYPE
    SYNTAX Counter32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of RADIUS Access-Challenge packets
        sent to this client."
    ::= { radiusAuthClientExtEntry 9 }

radiusAuthServExtMalformedAccessRequests OBJECT-TYPE
    SYNTAX Counter32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of malformed RADIUS Access-Request
        packets received from this client.
        Bad authenticators and unknown types are not included
        as malformed Access-Requests."
    ::= { radiusAuthClientExtEntry 10 }

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

```

```
        "The number of RADIUS Authentication-Request packets
        which contained invalid Message Authenticator
        attributes received from this client."
 ::= { radiusAuthClientExtEntry 11 }

radiusAuthServExtPacketsDropped OBJECT-TYPE
    SYNTAX Counter32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of incoming packets from this
        client silently discarded for some reason other
        than malformed, bad authenticators or
        unknown types."
 ::= { radiusAuthClientExtEntry 12 }

radiusAuthServExtUnknownTypes OBJECT-TYPE
    SYNTAX Counter32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of RADIUS packets of unknown type which
        were received from this client."
 ::= { radiusAuthClientExtEntry 13 }

-- conformance information

radiusAuthServMIBConformance OBJECT IDENTIFIER
 ::= { radiusAuthServMIB 2 }
radiusAuthServMIBCompliances OBJECT IDENTIFIER
 ::= { radiusAuthServMIBConformance 1 }
radiusAuthServMIBGroups OBJECT IDENTIFIER
 ::= { radiusAuthServMIBConformance 2 }

radiusAuthServExtMIBConformance OBJECT IDENTIFIER
 ::= { radiusAuthServerExtMIB 2 }
radiusAuthServExtMIBCompliances OBJECT IDENTIFIER
 ::= { radiusAuthServExtMIBConformance 1 }
radiusAuthServExtMIBGroups OBJECT IDENTIFIER
 ::= { radiusAuthServExtMIBConformance 2 }

-- compliance statements

radiusAuthServMIBCompliance MODULE-COMPLIANCE
    STATUS deprecated
```

DESCRIPTION

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"The compliance statement for authentication servers implementing the RADIUS Authentication Server MIB."

MODULE -- this module

MANDATORY-GROUPS { radiusAuthServMIBGroup }

OBJECT radiusAuthServConfigReset

WRITE-SYNTAX INTEGER { reset(2) }

DESCRIPTION "The only SETable value is 'reset' (2)."

::= { radiusAuthServMIBCompliances 1 }

radiusAuthServMIBExtCompliance MODULE-COMPLIANCE

STATUS current

DESCRIPTION

"The compliance statement for authentication servers implementing the RADIUS Authentication Server MIB."

MODULE -- this module

MANDATORY-GROUPS { radiusAuthServExtMIBGroup }

OBJECT radiusAuthServConfigReset

WRITE-SYNTAX INTEGER { reset(2) }

DESCRIPTION "The only SETable value is 'reset' (2)."

::= { radiusAuthServExtMIBCompliances 1 }

-- units of conformance

radiusAuthServMIBGroup OBJECT-GROUP

OBJECTS {radiusAuthServIdent,
radiusAuthServUpTime,
radiusAuthServResetTime,
radiusAuthServConfigReset,
radiusAuthServTotalAccessRequests,
radiusAuthServTotalInvalidRequests,
radiusAuthServTotalDupAccessRequests,
radiusAuthServTotalAccessAccepts,

radiusAuthServTotalAccessRejects,
radiusAuthServTotalAccessChallenges,
radiusAuthServTotalMalformedAccessRequests,
radiusAuthServTotalBadAuthenticators,
radiusAuthServTotalPacketsDropped,
radiusAuthServTotalUnknownTypes,
radiusAuthClientAddress,
radiusAuthClientID,

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radiusAuthServAccessRequests,
radiusAuthServDupAccessRequests,
radiusAuthServAccessAccepts,
radiusAuthServAccessRejects,
radiusAuthServAccessChallenges,
radiusAuthServMalformedAccessRequests,
radiusAuthServBadAuthenticators,
radiusAuthServPacketsDropped,
radiusAuthServUnknownTypes

}

STATUS deprecated

DESCRIPTION

"The collection of objects providing management of
a RADIUS Authentication Server."

::= { radiusAuthServMIBGroups 1 }

radiusAuthServExtMIBGroup OBJECT-GROUP

OBJECTS {radiusAuthServIdent,
radiusAuthServUpTime,
radiusAuthServResetTime,
radiusAuthServConfigReset,
radiusAuthServTotalAccessRequests,
radiusAuthServTotalInvalidRequests,
radiusAuthServTotalDupAccessRequests,
radiusAuthServTotalAccessAccepts,
radiusAuthServTotalAccessRejects,
radiusAuthServTotalAccessChallenges,
radiusAuthServTotalMalformedAccessRequests,
radiusAuthServTotalBadAuthenticators,
radiusAuthServTotalPacketsDropped,
radiusAuthServTotalUnknownTypes,
radiusAuthClientInetAddressType,
radiusAuthClientInetAddress,

```
radiusAuthClientExtID,  
radiusAuthServExtAccessRequests,  
radiusAuthServExtDupAccessRequests,  
radiusAuthServExtAccessAccepts,  
radiusAuthServExtAccessRejects,  
radiusAuthServExtAccessChallenges,  
radiusAuthServExtMalformedAccessRequests,  
radiusAuthServExtBadAuthenticators,  
radiusAuthServExtPacketsDropped,  
radiusAuthServExtUnknownTypes  
}  
STATUS current  
DESCRIPTION  
"The collection of objects providing management of  
a RADIUS Authentication Server."
```

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```
::= { radiusAuthServExtMIBGroups 1 }
```

END

8. IANA Considerations

This document requires IANA assignment of a number in the MIB-2 OID number space.

9. Security Considerations

There are no management objects defined in this MIB that have a MAX-ACCESS clause of read-write and/or read-create. So, if this MIB is implemented correctly, then there is no risk that an intruder can alter or create any management objects of this MIB via direct SNMP SET operations.

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

radiusAuthClientIPAddress This can be used to determine the address

of the RADIUS authentication client with which the server is communicating. This information could be useful in mounting an attack on the authentication client.

radiusAuthClientInetAddress This can be used to determine the address of the RADIUS authentication client with which the server is communicating. This information could be useful in mounting an attack on the authentication client.

It is thus important to control even 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.

SNMP versions prior to SNMPv3 do not provide 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/SET (read/change/create/delete) 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 [[RFC2574](#)] and the View-based Access

Control Model [[RFC2575](#)] is recommended. Using these security features, customer/users can give access to the objects only to those principals (users) that have legitimate rights to GET or SET (change/create/delete) them.

[10.](#) References

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[Appendix A](#). Acknowledgments

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