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**Dynamic Authorization Server MIB**  
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Abstract

This memo defines a portion of the Management Information Base (MIB) for use with network management protocols in the Internet community. In particular, it describes the Remote Authentication Dial In User Service (RADIUS) [[RFC2865](#)] Dynamic Authorization Server (DAS) functions that support the dynamic authorization extensions as defined in [RFC 3576](#).

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## **1. Introduction**

This memo defines a portion of the Management Information Base (MIB) for use with network management protocols in the Internet community. It is becoming increasingly important to support Dynamic Authorization extensions on the network access server (NAS) devices to handle the Disconnect and Change-of-Authorization (CoA) messages as described in [[RFC3576](#)]. As a result, the effective management of RADIUS Dynamic Authorization entities is of considerable importance. This RADIUS Dynamic Authorization Server (DAS) MIB complements the managed objects used for managing RADIUS authentication and accounting clients as described in [[RFC2618bis](#)] and [[RFC2620bis](#)], respectively.

-- RFC Ed.: references [[DYNCLNT](#)], [[RFC2618bis](#)], [[RFC2619bis](#)],  
-- [[RFC2620bis](#)], and [[RFC2621bis](#)] should be replaced by  
-- references to the corresponding RFC.

### **1.1. Requirements notation**

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 [[RFC2119](#)].

### **1.2. Terminology**

Dynamic Authorization Server (DAS)

The component that resides on the NAS which processes the Disconnect and Change-of-Authorization (CoA) Request packets [[RFC3576](#)] sent by the Dynamic Authorization Client.

Dynamic Authorization Client (DAC)

The component which sends Disconnect and CoA-Request packets to the Dynamic Authorization Server. While often residing on the RADIUS server, it is also possible for this component to be located on a separate host, such as a Rating Engine.

Dynamic Authorization Server Port

The UDP port on which the Dynamic Authorization Server listens for the Disconnect and CoA requests sent by the Dynamic Authorization Client.



## **2. 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 \[RFC3410\]](#).

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, [RFC2578](#) [[RFC2578](#)], STD 58, [RFC2579](#) [[RFC2579](#)] and STD 58, [RFC2580](#) [[RFC2580](#)].



### **3. Overview**

"Dynamic Authorization Extensions to RADIUS" [[RFC3576](#)] defines the operation of Disconnect-Request, Disconnect-ACK, Disconnect-NAK, CoA-Request, CoA-ACK and CoA-NAK packets. Typically NAS devices implement the DAS function, and thus would be expected to implement the RADIUS Dynamic Authorization Server MIB, while DACs implement the client function, and thus would be expected to implement the RADIUS Dynamic Authorization Client MIB.

However, it is possible for a RADIUS Dynamic Authorization entity to perform both client and server functions. For example, a RADIUS proxy may act as a DAS to one or more DACs, while simultaneously acting as a DAC to one or more DASs. In such situations, it is expected that RADIUS entities combining client and server functionality will support both the client and server MIBs.

This memo describes the MIB for Dynamic Authorization Servers and relates to the following documents as follows:

[RFC2618bis] describes the MIB for a RADIUS Auth Client MIB.

[RFC2619bis] describes the MIB for a RADIUS Auth Server MIB.

[RFC2620bis] describes the MIB for a RADIUS Acct Client MIB.

[RFC2621bis] describes the MIB for a RADIUS Acct Server MIB.

[DYNCLNT] describes the MIB for a RADIUS Dynamic Authorization Client.

A NAS typically implements the MIBs for a RADIUS Authentication Client, a RADIUS accounting client, and a RADIUS Dynamic Authorization Server. However, any one MIB can be implemented without implementing any of the other MIBs, i.e. the MIBs have no dependencies on each other. A typical case would be for a device to implement the MIBs RADIUS authentication server, RADIUS accounting server and RADIUS Dynamic Authorization Client. A RADIUS proxy might implement any, all or a subset of the MIBs listed above and the MIB as defined in this document.





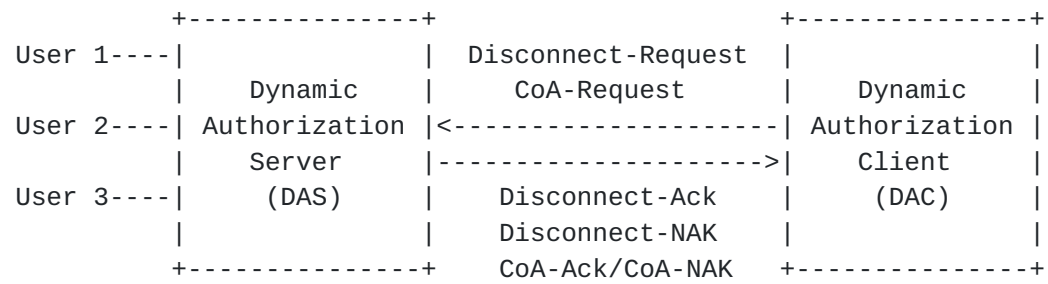


Figure 1: Mapping of clients and servers.

This MIB module for the Dynamic Authorization Server contains the following:

1. Three scalar objects, and
2. One Dynamic Authorization Client Table. This table contains one row for each DAC with which the DAS shares a secret.



#### **4. RADIUS Dynamic Authorization Server MIB Definitions**

RADIUS-DYNAUTH-SERVER-MIB DEFINITIONS ::= BEGIN

IMPORTS

```
MODULE-IDENTITY, OBJECT-TYPE,
Counter32, Integer32, mib-2,
TimeTicks          FROM SNMPv2-SMI          -- [RFC2578]
SnmpAdminString     FROM SNMP-FRAMEWORK-MIB  -- [RFC3411]
InetAddressType,
InetAddress         FROM INET-ADDRESS-MIB    -- [RFC4001]
MODULE-COMPLIANCE,
OBJECT-GROUP        FROM SNMPv2-CONF;       -- [RFC2580]
```

radiusDynAuthServerMIB MODULE-IDENTITY

LAST-UPDATED "200606060000Z" -- 6 June 2006

ORGANIZATION "IETF RADEXT Working Group"

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DESCRIPTION

"The MIB module for entities implementing the server side of the Dynamic Authorization Extensions to Remote Authentication Dial In User Service (RADIUS) protocol.



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version as published in RFC yyyy;  
for full legal notices see the RFC itself."

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

REVISION "200606060000Z" -- 6 June 2006

DESCRIPTION "Initial version as published in RFC yyyy."

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

::= { mib-2 xxx }

-- The value xxx to be assigned by IANA.

radiusDynAuthServerMIBObjects OBJECT IDENTIFIER ::=

{ radiusDynAuthServerMIB 1 }

radiusDynAuthServerScalars OBJECT IDENTIFIER ::=

{ radiusDynAuthServerMIBObjects 1 }

radiusDynAuthServerDisconInvalidClientAddresses OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The number of Disconnect-Request packets received from  
unknown addresses. This counter may experience a  
discontinuity when the DAS module (re)starts as  
indicated by the value of  
radiusDynAuthServerCounterDiscontinuity."

::= { radiusDynAuthServerScalars 1 }

radiusDynAuthServerCoAInvalidClientAddresses OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The number of CoA-Request packets received from unknown  
addresses. This counter may experience a discontinuity  
when the DAS module (re)starts as indicated by the value  
of radiusDynAuthServerCounterDiscontinuity."

::= { radiusDynAuthServerScalars 2 }

radiusDynAuthServerIdentifier OBJECT-TYPE

SYNTAX SnmpAdminString

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The NAS-Identifier of the RADIUS Dynamic Authorization  
Server. This is not necessarily the same as sysName in  
MIB II."



## REFERENCE

["RFC 2865, Section 5.32, NAS-Identifier."](#)

::= { radiusDynAuthServerScalars 3 }

## radiusDynAuthClientTable OBJECT-TYPE

SYNTAX SEQUENCE OF RadiusDynAuthClientEntry

MAX-ACCESS not-accessible

STATUS current

## DESCRIPTION

"The (conceptual) table listing the RADIUS Dynamic Authorization Clients with which the server shares a secret."

::= { radiusDynAuthServerMIBObjects 2 }

## radiusDynAuthClientEntry OBJECT-TYPE

SYNTAX RadiusDynAuthClientEntry

MAX-ACCESS not-accessible

STATUS current

## DESCRIPTION

"An entry (conceptual row) representing one Dynamic Authorization Client with which the server shares a secret."

INDEX { radiusDynAuthClientIndex }

::= { radiusDynAuthClientTable 1 }

## RadiusDynAuthClientEntry ::= SEQUENCE {

radiusDynAuthClientIndex	Integer32,
radiusDynAuthClientAddressType	InetAddressType,
radiusDynAuthClientAddress	InetAddress,
radiusDynAuthServDisconRequests	Counter32,
radiusDynAuthServDisconAuthOnlyRequests	Counter32,
radiusDynAuthServDupDisconRequests	Counter32,
radiusDynAuthServDisconAcks	Counter32,
radiusDynAuthServDisconNaks	Counter32,
radiusDynAuthServDisconNakAuthOnlyRequests	Counter32,
radiusDynAuthServDisconNakSessNoContext	Counter32,
radiusDynAuthServDisconUserSessRemoved	Counter32,
radiusDynAuthServMalformedDisconRequests	Counter32,
radiusDynAuthServDisconBadAuthenticators	Counter32,
radiusDynAuthServDisconPacketsDropped	Counter32,
radiusDynAuthServCoARequests	Counter32,
radiusDynAuthServCoAAuthOnlyRequests	Counter32,
radiusDynAuthServDupCoARequests	Counter32,
radiusDynAuthServCoAAcks	Counter32,
radiusDynAuthServCoANaks	Counter32,
radiusDynAuthServCoANakAuthOnlyRequests	Counter32,
radiusDynAuthServCoANakSessNoContext	Counter32,
radiusDynAuthServCoAUserSessChanged	Counter32,





```
radiusDynAuthServMalformedCoARequests      Counter32,  
radiusDynAuthServCoABadAuthenticators      Counter32,  
radiusDynAuthServCoAPacketsDropped         Counter32,  
radiusDynAuthServUnknownTypes              Counter32,  
radiusDynAuthServerCounterDiscontinuity     TimeTicks  
}
```

radiusDynAuthClientIndex OBJECT-TYPE

SYNTAX Integer32 (1..2147483647)

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"A number uniquely identifying each RADIUS Dynamic Authorization Client with which this Dynamic Authorization Server communicates. This number is allocated by the agent implementing this MIB module, and is unique in this context."

::= { radiusDynAuthClientEntry 1 }

radiusDynAuthClientAddressType OBJECT-TYPE

SYNTAX InetAddressType

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The type of IP address of the RADIUS Dynamic Authorization Client referred to in this table entry."

::= { radiusDynAuthClientEntry 2 }

radiusDynAuthClientAddress OBJECT-TYPE

SYNTAX InetAddress

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The IP address value of the RADIUS Dynamic Authorization Client referred to in this table entry, using the version neutral IP address format. The type of this address is determined by the value of the radiusDynAuthClientAddressType object."

::= { radiusDynAuthClientEntry 3 }

radiusDynAuthServDisconRequests OBJECT-TYPE

SYNTAX Counter32

UNITS "requests"

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The number of RADIUS Disconnect-Requests received"



from this Dynamic Authorization Client. This also includes the RADIUS Disconnect-Requests that have a Service-Type attribute with value 'Authorize Only'. This counter may experience a discontinuity when the DAS module (re)starts as indicated by the value of radiusDynAuthServerCounterDiscontinuity."

## REFERENCE

"[RFC 3576, Section 2.1](#), Disconnect Messages (DM)."

::= { radiusDynAuthClientEntry 4 }

## radiusDynAuthServDisconAuthOnlyRequests OBJECT-TYPE

SYNTAX Counter32

UNITS "requests"

MAX-ACCESS read-only

STATUS current

## DESCRIPTION

"The number of RADIUS Disconnect-Requests that include a Service-Type attribute with value 'Authorize Only' received from this Dynamic Authorization Client. This counter may experience a discontinuity when the DAS module (re)starts as indicated by the value of radiusDynAuthServerCounterDiscontinuity."

## REFERENCE

"[RFC 3576, Section 2.1](#), Disconnect Messages (DM)."

::= { radiusDynAuthClientEntry 5 }

## radiusDynAuthServDupDisconRequests OBJECT-TYPE

SYNTAX Counter32

UNITS "requests"

MAX-ACCESS read-only

STATUS current

## DESCRIPTION

"The number of duplicate RADIUS Disconnect-Request packets received from this Dynamic Authorization Client. This counter may experience a discontinuity when the DAS module (re)starts as indicated by the value of radiusDynAuthServerCounterDiscontinuity."

## REFERENCE

"[RFC 3576, Section 2.1](#), Disconnect Messages (DM)."

::= { radiusDynAuthClientEntry 6 }

## radiusDynAuthServDisconAcks OBJECT-TYPE

SYNTAX Counter32

UNITS "replies"

MAX-ACCESS read-only

STATUS current

## DESCRIPTION

"The number of RADIUS Disconnect-ACK packets sent to



this Dynamic Authorization Client. This counter may experience a discontinuity when the DAS module (re)starts as indicated by the value of radiusDynAuthServerCounterDiscontinuity."

## REFERENCE

"[RFC 3576, Section 2.1](#), Disconnect Messages (DM)."

::= { radiusDynAuthClientEntry 7 }

## radiusDynAuthServDisconNaks OBJECT-TYPE

SYNTAX Counter32

UNITS "replies"

MAX-ACCESS read-only

STATUS current

## DESCRIPTION

"The number of RADIUS Disconnect-NAK packets sent to this Dynamic Authorization Client. This includes the RADIUS Disconnect-NAK packets sent with a Service-Type attribute with value 'Authorize Only' and the RADIUS Disconnect-NAK packets sent because no session context was found. This counter may experience a discontinuity when the DAS module (re)starts as indicated by the value of radiusDynAuthServerCounterDiscontinuity."

## REFERENCE

"[RFC 3576, Section 2.1](#), Disconnect Messages (DM)."

::= { radiusDynAuthClientEntry 8 }

## radiusDynAuthServDisconNakAuthOnlyRequests OBJECT-TYPE

SYNTAX Counter32

UNITS "replies"

MAX-ACCESS read-only

STATUS current

## DESCRIPTION

"The number of RADIUS Disconnect-NAK packets that include a Service-Type attribute with value 'Authorize Only' sent to this Dynamic Authorization Client. This counter may experience a discontinuity when the DAS module (re)starts as indicated by the value of radiusDynAuthServerCounterDiscontinuity."

## REFERENCE

"[RFC 3576, Section 2.1](#), Disconnect Messages (DM)."

::= { radiusDynAuthClientEntry 9 }

## radiusDynAuthServDisconNakSessNoContext OBJECT-TYPE

SYNTAX Counter32

UNITS "replies"

MAX-ACCESS read-only

STATUS current



## DESCRIPTION

"The number of RADIUS Disconnect-NAK packets sent to this Dynamic Authorization Client because no session context was found. This counter may experience a discontinuity when the DAS module (re)starts as indicated by the value of radiusDynAuthServerCounterDiscontinuity."

## REFERENCE

"[RFC 3576, Section 2.1](#), Disconnect Messages (DM)."

::= { radiusDynAuthClientEntry 10 }

## radiusDynAuthServDisconUserSessRemoved OBJECT-TYPE

SYNTAX Counter32  
UNITS "sessions"  
MAX-ACCESS read-only  
STATUS current

## DESCRIPTION

"The number of user sessions removed for the Disconnect-Requests received from this Dynamic Authorization Client. Depending on site specific policies, a single Disconnect request can remove multiple user sessions. In the case that this Dynamic Authorization Server has no knowledge of the number of user sessions that are affected by a single request, for each such Disconnect-Request, it will count as a single affected user session only. This counter may experience a discontinuity when the DAS module (re)starts as indicated by the value of radiusDynAuthServerCounterDiscontinuity."

## REFERENCE

"[RFC 3576, Section 2.1](#), Disconnect Messages (DM)."

::= { radiusDynAuthClientEntry 11 }

## radiusDynAuthServMalformedDisconRequests OBJECT-TYPE

SYNTAX Counter32  
UNITS "requests"  
MAX-ACCESS read-only  
STATUS current

## DESCRIPTION

"The number of malformed RADIUS Disconnect-Request packets received from this Dynamic Authorization Client. Bad authenticators and unknown types are not included as malformed Disconnect-Requests. This counter may experience a discontinuity when the DAS module (re)starts as indicated by the value of radiusDynAuthServerCounterDiscontinuity."

## REFERENCE





"[RFC 3576, Section 2.1](#), Disconnect Messages (DM), and  
[Section 2.3](#), Packet Format."  
 ::= { radiusDynAuthClientEntry 12 }

radiusDynAuthServDisconBadAuthenticators OBJECT-TYPE

SYNTAX Counter32  
UNITS "requests"  
MAX-ACCESS read-only  
STATUS current

DESCRIPTION

"The number of RADIUS Disconnect-Request packets which contained invalid Authenticator field received from this Dynamic Authorization Client. This counter may experience a discontinuity when the DAS module (re)starts as indicated by the value of radiusDynAuthServerCounterDiscontinuity."

REFERENCE

"[RFC 3576, Section 2.1](#), Disconnect Messages (DM), and  
[Section 2.3](#), Packet Format."

::= { radiusDynAuthClientEntry 13 }

radiusDynAuthServDisconPacketsDropped OBJECT-TYPE

SYNTAX Counter32  
UNITS "requests"  
MAX-ACCESS read-only  
STATUS current

DESCRIPTION

"The number of incoming Disconnect-Requests from this Dynamic Authorization Client silently discarded by the server application for some reason other than malformed, bad authenticators or unknown types. This counter may experience a discontinuity when the DAS module (re)starts as indicated by the value of radiusDynAuthServerCounterDiscontinuity."

REFERENCE

"[RFC 3576, Section 2.1](#), Disconnect Messages (DM), and  
[Section 2.3](#), Packet Format."

::= { radiusDynAuthClientEntry 14 }

radiusDynAuthServCoARequests OBJECT-TYPE

SYNTAX Counter32  
UNITS "requests"  
MAX-ACCESS read-only  
STATUS current

DESCRIPTION

"The number of RADIUS CoA-requests received from this Dynamic Authorization Client. This also includes the CoA requests that have a Service-Type attribute



with value 'Authorize Only'. This counter may experience a discontinuity when the DAS module (re)starts as indicated by the value of radiusDynAuthServerCounterDiscontinuity."

## REFERENCE

"[RFC 3576, Section 2.2](#), Change-of-Authorization Messages (CoA)."

::= { radiusDynAuthClientEntry 15 }

## radiusDynAuthServCoAAuthOnlyRequests OBJECT-TYPE

SYNTAX Counter32

UNITS "requests"

MAX-ACCESS read-only

STATUS current

## DESCRIPTION

"The number of RADIUS CoA-requests that include a Service-Type attribute with value 'Authorize Only' received from this Dynamic Authorization Client. This counter may experience a discontinuity when the DAS module (re)starts as indicated by the value of radiusDynAuthServerCounterDiscontinuity."

## REFERENCE

"[RFC 3576, Section 2.2](#), Change-of-Authorization Messages (CoA)."

::= { radiusDynAuthClientEntry 16 }

## radiusDynAuthServDupCoARequests OBJECT-TYPE

SYNTAX Counter32

UNITS "requests"

MAX-ACCESS read-only

STATUS current

## DESCRIPTION

"The number of duplicate RADIUS CoA-Request packets received from this Dynamic Authorization Client. This counter may experience a discontinuity when the DAS module (re)starts as indicated by the value of radiusDynAuthServerCounterDiscontinuity."

## REFERENCE

"[RFC 3576, Section 2.2](#), Change-of-Authorization Messages (CoA)."

::= { radiusDynAuthClientEntry 17 }

## radiusDynAuthServCoAAcks OBJECT-TYPE

SYNTAX Counter32

UNITS "replies"

MAX-ACCESS read-only

STATUS current



## DESCRIPTION

"The number of RADIUS CoA-ACK packets sent to this Dynamic Authorization Client. This counter may experience a discontinuity when the DAS module (re)starts as indicated by the value of radiusDynAuthServerCounterDiscontinuity."

## REFERENCE

"[RFC 3576, Section 2.2](#), Change-of-Authorization Messages (CoA)."

::= { radiusDynAuthClientEntry 18 }

## radiusDynAuthServCoANaks OBJECT-TYPE

SYNTAX Counter32

UNITS "replies"

MAX-ACCESS read-only

STATUS current

## DESCRIPTION

"The number of RADIUS CoA-NAK packets sent to this Dynamic Authorization Client. This includes the RADIUS CoA-NAK packets sent with a Service-Type attribute with value 'Authorize Only' and the RADIUS CoA-NAK packets sent because no session context was found. This counter may experience a discontinuity when the DAS module (re)starts as indicated by the value of radiusDynAuthServerCounterDiscontinuity."

## REFERENCE

"[RFC 3576, Section 2.2](#), Change-of-Authorization Messages (CoA)."

::= { radiusDynAuthClientEntry 19 }

## radiusDynAuthServCoANakAuthOnlyRequests OBJECT-TYPE

SYNTAX Counter32

UNITS "replies"

MAX-ACCESS read-only

STATUS current

## DESCRIPTION

"The number of RADIUS CoA-NAK packets that include a Service-Type attribute with value 'Authorize Only' sent to this Dynamic Authorization Client. This counter may experience a discontinuity when the DAS module (re)starts as indicated by the value of radiusDynAuthServerCounterDiscontinuity."

## REFERENCE

"[RFC 3576, Section 2.2](#), Change-of-Authorization Messages (CoA)."

::= { radiusDynAuthClientEntry 20 }

## radiusDynAuthServCoANakSessNoContext OBJECT-TYPE



SYNTAX Counter32  
UNITS "replies"  
MAX-ACCESS read-only  
STATUS current  
DESCRIPTION  
    "The number of RADIUS CoA-NAK packets sent to this  
    Dynamic Authorization Client because no session context  
    was found. This counter may experience a discontinuity  
    when the DAS module (re)starts as indicated by the  
    value of radiusDynAuthServerCounterDiscontinuity."  
REFERENCE  
    "[RFC 3576, Section 2.2](#), Change-of-Authorization  
    Messages (CoA)."  
 ::= { radiusDynAuthClientEntry 21 }

radiusDynAuthServCoAUserSessChanged OBJECT-TYPE

SYNTAX Counter32  
UNITS "sessions"  
MAX-ACCESS read-only  
STATUS current  
DESCRIPTION  
    "The number of user sessions authorization  
    changed for the CoA-Requests received from this  
    Dynamic Authorization Client. Depending on site  
    specific policies, a single CoA request can change  
    multiple user sessions' authorization. In the case  
    this Dynamic Authorization Server has no knowledge of  
    the number of user sessions that are affected by a  
    single request, for each such CoA-Request, it will  
    count as a single affected user session only. This  
    counter may experience a discontinuity when the DAS  
    module (re)starts as indicated by the value of  
    radiusDynAuthServerCounterDiscontinuity."  
REFERENCE  
    "[RFC 3576, Section 2.2](#), Change-of-Authorization  
    Messages (CoA)."  
 ::= { radiusDynAuthClientEntry 22 }

radiusDynAuthServMalformedCoARequests OBJECT-TYPE

SYNTAX Counter32  
UNITS "requests"  
MAX-ACCESS read-only  
STATUS current  
DESCRIPTION  
    "The number of malformed RADIUS CoA-Request packets  
    received from this Dynamic Authorization Client. Bad  
    authenticators and unknown types are not included as  
    malformed CoA-Requests. This counter may experience a





discontinuity when the DAS module (re)starts as indicated by the value of radiusDynAuthServerCounterDiscontinuity."

## REFERENCE

"[RFC 3576, Section 2.2](#), Change-of-Authorization Messages (CoA), and [Section 2.3](#), Packet Format."

::= { radiusDynAuthClientEntry 23 }

## radiusDynAuthServCoABadAuthenticators OBJECT-TYPE

SYNTAX Counter32  
UNITS "requests"  
MAX-ACCESS read-only  
STATUS current  
DESCRIPTION

"The number of RADIUS CoA-Request packets which contained invalid Authenticator field received from this Dynamic Authorization Client. This counter may experience a discontinuity when the DAS module (re)starts as indicated by the value of radiusDynAuthServerCounterDiscontinuity."

## REFERENCE

"[RFC 3576, Section 2.2](#), Change-of-Authorization Messages (CoA), and [Section 2.3](#), Packet Format."

::= { radiusDynAuthClientEntry 24 }

## radiusDynAuthServCoAPacketsDropped OBJECT-TYPE

SYNTAX Counter32  
UNITS "requests"  
MAX-ACCESS read-only  
STATUS current  
DESCRIPTION

"The number of incoming CoA packets from this Dynamic Authorization Client silently discarded by the server application for some reason other than malformed, bad authenticators or unknown types. This counter may experience a discontinuity when the DAS module (re)starts as indicated by the value of radiusDynAuthServerCounterDiscontinuity."

## REFERENCE

"[RFC 3576, Section 2.2](#), Change-of-Authorization Messages (CoA), and [Section 2.3](#), Packet Format."

::= { radiusDynAuthClientEntry 25 }

## radiusDynAuthServUnknownTypes OBJECT-TYPE

SYNTAX Counter32  
UNITS "requests"  
MAX-ACCESS read-only  
STATUS current



## DESCRIPTION

"The number of incoming packets of unknown types which were received on the Dynamic Authorization port. This counter may experience a discontinuity when the DAS module (re)starts as indicated by the value of radiusDynAuthServerCounterDiscontinuity."

## REFERENCE

"[RFC 3576, Section 2.3](#), Packet Format."

::= { radiusDynAuthClientEntry 26 }

## radiusDynAuthServerCounterDiscontinuity OBJECT-TYPE

SYNTAX TimeTicks

UNITS "hundredths of a second"

MAX-ACCESS read-only

STATUS current

## DESCRIPTION

"The time (in hundredths of a second) since the last counter discontinuity. A discontinuity may be the result of a reinitialization of the DAS module within the managed entity."

::= { radiusDynAuthClientEntry 27 }

-- conformance information

## radiusDynAuthServerMIBConformance

OBJECT IDENTIFIER ::= { radiusDynAuthServerMIB 2 }

## radiusDynAuthServerMIBCompliances

OBJECT IDENTIFIER ::= { radiusDynAuthServerMIBConformance 1 }

## radiusDynAuthServerMIBGroups

OBJECT IDENTIFIER ::= { radiusDynAuthServerMIBConformance 2 }

-- compliance statements

## radiusAuthServerMIBCompliance MODULE-COMPLIANCE

STATUS current

## DESCRIPTION

"The compliance statement for entities implementing the RADIUS Dynamic Authorization Server. Implementation of this module is for entities that support IPv4 and/or IPv6."

MODULE -- this module

MANDATORY-GROUPS { radiusDynAuthServerMIBGroup }

OBJECT radiusDynAuthClientAddressType

SYNTAX InetAddressType { ipv4(1), ipv6(2) }

## DESCRIPTION

"An implementation is only required to support IPv4 and



globally unique IPv6 addresses."

OBJECT radiusDynAuthClientAddress

SYNTAX InetAddress (SIZE(4|16))

DESCRIPTION

"An implementation is only required to support IPv4 and globally unique IPv6 addresses."

GROUP radiusDynAuthServerAuthOnlyGroup

DESCRIPTION

"Only required for Dynamic Authorization Clients that are supporting Service-Type attributes with value 'Authorize-Only'."

GROUP radiusDynAuthServerNoSessGroup

DESCRIPTION

"This group is not required in case the Dynamic Authorization Server can not easily determine whether a session exists or not (e.g., in case of a RADIUS proxy)."

::= { radiusDynAuthServerMIBCompliances 1 }

-- units of conformance

radiusDynAuthServerMIBGroup OBJECT-GROUP

OBJECTS { radiusDynAuthServerDisconInvalidClientAddresses,  
radiusDynAuthServerCoAInvalidClientAddresses,  
radiusDynAuthServerIdentifier,  
radiusDynAuthClientAddressType,  
radiusDynAuthClientAddress,  
radiusDynAuthServDisconRequests,  
radiusDynAuthServDupDisconRequests,  
radiusDynAuthServDisconAcks,  
radiusDynAuthServDisconNaks,  
radiusDynAuthServDisconUserSessRemoved,  
radiusDynAuthServMalformedDisconRequests,  
radiusDynAuthServDisconBadAuthenticators,  
radiusDynAuthServDisconPacketsDropped,  
radiusDynAuthServCoARequests,  
radiusDynAuthServDupCoARequests,  
radiusDynAuthServCoAAcks,  
radiusDynAuthServCoANaks,  
radiusDynAuthServCoAUserSessChanged,  
radiusDynAuthServMalformedCoARequests,  
radiusDynAuthServCoABadAuthenticators,  
radiusDynAuthServCoAPacketsDropped,



```
        radiusDynAuthServUnknownTypes,
        radiusDynAuthServerCounterDiscontinuity
    }
    STATUS current
    DESCRIPTION
        "The collection of objects providing management of
        a RADIUS Dynamic Authorization Server."
    ::= { radiusDynAuthServerMIBGroups 1 }

radiusDynAuthServerAuthOnlyGroup OBJECT-GROUP
    OBJECTS { radiusDynAuthServDisconAuthOnlyRequests,
        radiusDynAuthServDisconNakAuthOnlyRequests,
        radiusDynAuthServCoAAuthOnlyRequests,
        radiusDynAuthServCoANakAuthOnlyRequests
    }
    STATUS current
    DESCRIPTION
        "The collection of objects supporting the RADIUS
        messages including Service-Type attribute with
        value 'Authorize Only'."
    ::= { radiusDynAuthServerMIBGroups 2 }

radiusDynAuthServerNoSessGroup OBJECT-GROUP
    OBJECTS { radiusDynAuthServDisconNakSessNoContext,
        radiusDynAuthServCoANakSessNoContext
    }
    STATUS current
    DESCRIPTION
        "The collection of objects supporting the RADIUS
        messages that are referring to non existing sessions."
    ::= { radiusDynAuthServerMIBGroups 3 }

END
```





## 5. Security Considerations

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

Some of the readable objects in this MIB module (i.e., objects with a MAX-ACCESS other than not-accessible) may be considered sensitive or vulnerable in some network environments. It is thus important to control even GET and/or NOTIFY access to these objects and possibly to even encrypt the values of these objects when sending them over the network via SNMP. These are the tables and objects and their sensitivity/vulnerability:

radiusDynAuthClientAddress and radiusDynAuthClientAddressType

These can be used to determine the address of the DAC with which the DAS is communicating. This information could be useful in mounting an attack on the DAC.

radiusDynAuthServerIdentifier

This can be used to determine the Identifier of the DAS. This information could be useful in impersonating the DAS.

SNMP versions prior to SNMPv3 did not include adequate security. Even if the network itself is secure (for example by using IPsec), even then, 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 module.

It is RECOMMENDED that implementers consider the security features as provided by the SNMPv3 framework (see [\[RFC3410\]](#), [section 8](#)), including full support for the SNMPv3 cryptographic mechanisms (for authentication and privacy).

Further, deployment of SNMP versions prior to SNMPv3 is NOT RECOMMENDED. Instead, it is RECOMMENDED to deploy SNMPv3 and to enable cryptographic security. It is then a customer/operator responsibility to ensure that the SNMP entity giving access to an instance of this MIB module 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.



## **6. IANA considerations**

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

## **7. Acknowledgements**

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