

-- extracted from rfc2940.txt
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COPS-CLIENT-MIB DEFINITIONS ::= BEGIN

IMPORTS

MODULE-IDENTITY,
OBJECT-TYPE,
Counter32,
Integer32,
Unsigned32,
mib-2
FROM SNMPv2-SMI
TimeStamp,
TimeInterval,
RowStatus,
TEXTUAL-CONVENTION
FROM SNMPv2-TC
MODULE-COMPLIANCE,
OBJECT-GROUP
FROM SNMPv2-CONF
InetAddressType,
InetAddress
FROM INET-ADDRESS-MIB;

-- REFERENCE

-- "The COPS (Common Open Policy Service) Protocol RFC 2748

copsClientMIB MODULE-IDENTITY

LAST-UPDATED "200009280000Z" -- Sep 28, 2000 12:00:00 AM

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DESCRIPTION

"The COPS Client MIB module"

REVISION "200009280000Z"

-- Sep 28, 2000 12:00:00 AM

DESCRIPTION

"This version published as RFC 2940"

-- 1.3.6.1.2.1.89 -- ::= { mib-2 89 }

copsClientMIBObjects OBJECT IDENTIFIER

-- 1.3.6.1.2.1.89.1 -- ::= { copsClientMIB 1 }

-- Textual Conventions

CopsClientState ::= TEXTUAL-CONVENTION

STATUS current

DESCRIPTION

"A value indicating the state of a COPS client."

SYNTAX INTEGER {

```

        copsClientInvalid(1),           -- default state.
        copsClientTcpconnected(2),      -- TCP connection up but
COPS
                                         -- not yet open.
        copsClientAuthenticating(3),    -- TCP connection up but
still
                                         -- authenticating.
        copsClientSecAccepted(4),       -- connection
authenticated.
                                         -- COPS server accepted
        copsClientAccepted(5),         -- COPS server accepted
client.
        copsClientTimeout(6)           -- Keepalive timer has
expired,
                                         -- client is in process of
                                         -- tearing down connection.
    }

```

CopsServerEntryType ::= TEXTUAL-CONVENTION

STATUS current

DESCRIPTION

"A value indicating how a COPS server entry came into existence."

SYNTAX INTEGER {
 copsServerStatic(1), -- configured by manager
 copsServerRedirect(2) -- notified by COPS server
 }

CopsErrorCode ::= TEXTUAL-CONVENTION

STATUS current

DESCRIPTION

"A value describing a COPS protocol error. Codes are identical to those used by the COPS protocol itself."

SYNTAX INTEGER {
 errorOther(0), -- none of the
below
 errorBadHandle(1),
 errorInvalidHandleReference(2),
 errorBadMessageFormat(3),
 errorUnableToProcess(4),
 errorMandatoryClientSiMissing(5),
 errorUnsupportedClientType(6),
 errorMandatoryCopsObjectMissing(7),
 errorClientFailure(8),
 errorCommunicationFailure(9),
 errorUnspecified(10), -- client-type
specific subcode
 errorShuttingDown(11),
 errorRedirectToPreferredServer(12),
 errorUnknownCopsObject(13),
 errorAuthenticationFailure(14),
 errorAuthenticationMissing(15) }

-- REFERENCE

-- "RFC 2748 section 2.2.8"

CopsTcpPort ::= TEXTUAL-CONVENTION

STATUS current

DESCRIPTION

"A value indicating a TCP protocol port number."

SYNTAX INTEGER (0..65535)

CopsAuthType ::= TEXTUAL-CONVENTION

STATUS current

DESCRIPTION

"A value indicating a type of security authentication mechanism."

SYNTAX INTEGER {
 authNone(0),
 authOther(1),
 authIpSecAh(2),
 authIpSecEsp(3),
 authTls(4),

```

                                authCopsIntegrity(5) }
-----

copsClientCapabilitiesGroup OBJECT IDENTIFIER
-- 1.3.6.1.2.1.89.1.1 -- ::= { copsClientMIBObjects 1 }
-----

--
-- Capabilities of the COPS client to connect to a COPS server:
--

copsClientCapabilities OBJECT-TYPE
    SYNTAX      BITS {
protocol
                                copsClientVersion1(0),          -- supports version1 of COPS
Authentication
                                copsClientAuthIpSecAh(1),        -- supports IP-SEC
Encryption
                                copsClientAuthIpSecEsp(2),       -- supports IP-SEC
Security
                                copsClientAuthTls(3),            -- supports Transport-Layer
                                copsClientAuthInteg(4)           -- supports COPS Integrity
    }
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "A list of the optional capabilities that this COPS client
        supports."
-- 1.3.6.1.2.1.89.1.1.1 -- ::= { copsClientCapabilitiesGroup 1 }
-----

copsClientStatusGroup OBJECT IDENTIFIER
-- 1.3.6.1.2.1.89.1.2 -- ::= { copsClientMIBObjects 2 }
-----

--
-- Current status of COPS server connections, all read-only.
--

copsClientServerCurrentTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF CopsClientServerCurrentEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A table of information regarding COPS servers as seen from the
        point of view of a COPS client. This table contains entries
        for both statically-configured and dynamically-learned servers
        (from a PDP Redirect operation). One entry exists in this table
        for each COPS Client-Type served by the COPS server. In addition,
        an entry will exist with copsClientServerClientType 0 (zero)
        representing information about the underlying connection itself:
        this is consistent with the COPS specification which reserves
        this value for this purpose."
-- 1.3.6.1.2.1.89.1.2.1 -- ::= { copsClientStatusGroup 1 }

copsClientServerCurrentEntry OBJECT-TYPE
    SYNTAX      CopsClientServerCurrentEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A set of information regarding a single COPS server serving
        a single COPS Client-Type from the point of view of a COPS
        client."
    INDEX {
        copsClientServerAddressType,
        copsClientServerAddress,
        copsClientServerClientType
    }
-- 1.3.6.1.2.1.89.1.2.1.1 -- ::= { copsClientServerCurrentTable 1 }

CopsClientServerCurrentEntry ::= SEQUENCE {

```

```

copsClientServerAddressType      InetAddressType ,
copsClientServerAddress          InetAddress ,
copsClientServerClientType       INTEGER ,
copsClientServerTcpPort          CopsTcpPort ,
copsClientServerType             CopsServerEntryType ,
copsClientServerAuthType         CopsAuthType ,
copsClientServerLastConnAttempt  TimeStamp ,
copsClientState                  CopsClientState ,
copsClientServerKeepaliveTime    TimeInterval ,
copsClientServerAccountingTime   TimeInterval ,
copsClientInPkts                 Counter32 ,
copsClientOutPkts                Counter32 ,
copsClientInErrs                 Counter32 ,
copsClientLastError              CopsErrorCode ,
copsClientTcpConnectAttempts     Counter32 ,
copsClientTcpConnectFailures     Counter32 ,
copsClientOpenAttempts           Counter32 ,
copsClientOpenFailures          Counter32 ,
copsClientErrUnsupportClienttype Counter32 ,
copsClientErrUnsupportedVersion  Counter32 ,
copsClientErrLengthMismatch      Counter32 ,
copsClientErrUnknownOpcode       Counter32 ,
copsClientErrUnknownCnum         Counter32 ,
copsClientErrBadCtype            Counter32 ,
copsClientErrBadSends            Counter32 ,
copsClientErrWrongObjects        Counter32 ,
copsClientErrWrongOpcode         Counter32 ,
copsClientKaTimedoutClients      Counter32 ,
copsClientErrAuthFailures        Counter32 ,
copsClientErrAuthMissing         Counter32

```

```

}

```

copsClientServerAddressType OBJECT-TYPE

SYNTAX InetAddressType

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"The type of address in copsClientServerAddress."

```

-- 1.3.6.1.2.1.89.1.2.1.1.1 -- ::= { copsClientServerCurrentEntry 1 }

```

copsClientServerAddress OBJECT-TYPE

SYNTAX InetAddress

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"The IPv4, IPv6 or DNS address of a COPS Server. Note that, since this is an index to the table, the DNS name must be short enough to fit into the maximum length of indices allowed by the management protocol in use."

REFERENCE "RFC 2748 section 2.3"

```

-- 1.3.6.1.2.1.89.1.2.1.1.2 -- ::= { copsClientServerCurrentEntry 2 }

```

copsClientServerClientType OBJECT-TYPE

SYNTAX INTEGER (0..65535)

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"The COPS protocol Client-Type for which this entry applies. Multiple Client-Types can be served by a single COPS server. The value 0 (zero) indicates that this entry contains information about the underlying connection itself."

REFERENCE "RFC 2748 section 6, IANA"

```

-- 1.3.6.1.2.1.89.1.2.1.1.3 -- ::= { copsClientServerCurrentEntry 3 }

```

copsClientServerTcpPort OBJECT-TYPE

SYNTAX CopsTcpPort

MAX-ACCESS read-only

```

STATUS      current
DESCRIPTION
    "The TCP port number on the COPS server to which the
    client should connect/is connected."
-- 1.3.6.1.2.1.89.1.2.1.1.4 -- ::= { copsClientServerCurrentEntry 4 }

copsClientServerType OBJECT-TYPE
SYNTAX      CopsServerEntryType
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Indicator of the source of this COPS server information.
    COPS servers may be configured by network management
    into copsClientServerConfigTable and appear in this entry
    with type copsServerStatic(1). Alternatively, they may be
    notified from another COPS server by means of the COPS
    PDP-Redirect mechanism and appear as copsServerRedirect(2)."
-- 1.3.6.1.2.1.89.1.2.1.1.5 -- ::= { copsClientServerCurrentEntry 5 }

copsClientServerAuthType OBJECT-TYPE
SYNTAX      CopsAuthType
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Indicator of the current security mode in use between
    client and this COPS server."
-- 1.3.6.1.2.1.89.1.2.1.1.6 -- ::= { copsClientServerCurrentEntry 6 }

copsClientServerLastConnAttempt OBJECT-TYPE
SYNTAX      TimeStamp
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Timestamp of the last time that this client attempted to
    connect to this COPS server."
-- 1.3.6.1.2.1.89.1.2.1.1.7 -- ::= { copsClientServerCurrentEntry 7 }

copsClientState OBJECT-TYPE
SYNTAX      CopsClientState
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The state of the connection and COPS protocol with respect
    to this COPS server."
-- 1.3.6.1.2.1.89.1.2.1.1.8 -- ::= { copsClientServerCurrentEntry 8 }

copsClientServerKeepaliveTime OBJECT-TYPE
SYNTAX      TimeInterval
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The value of the COPS protocol Keepalive timeout, in
    centiseconds, currently in use by this client, as
    specified by this COPS server in the Client-Accept operation.
    A value of zero indicates no keepalive activity is expected."
REFERENCE   "RFC 2748 section 3.7, 4.4"
-- 1.3.6.1.2.1.89.1.2.1.1.9 -- ::= { copsClientServerCurrentEntry 9 }

copsClientServerAccountingTime OBJECT-TYPE
SYNTAX      TimeInterval
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The value of the COPS protocol Accounting timeout, in
    centiseconds, currently in use by this client, as specified
    by the COPS server in the Client-Accept operation. A value
    of zero indicates no accounting activity is to be performed."
REFERENCE   "RFC 2748 section 3.7"
-- 1.3.6.1.2.1.89.1.2.1.1.10 -- ::= { copsClientServerCurrentEntry 10 }

```

```

copsClientInPkts OBJECT-TYPE
    SYNTAX Counter32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "A count of the total number of COPS messages that this client
        has received from this COPS server marked for this Client-Type.
        This value is cumulative since agent restart and is not zeroed
        on new connections."
    -- 1.3.6.1.2.1.89.1.2.1.1.11 -- ::= { copsClientServerCurrentEntry 11 }

copsClientOutPkts OBJECT-TYPE
    SYNTAX Counter32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "A count of the total number of COPS messages that this client
        has sent to this COPS server marked for this Client-Type. This
        value is cumulative since agent restart and is not zeroed on new
        connections."
    -- 1.3.6.1.2.1.89.1.2.1.1.12 -- ::= { copsClientServerCurrentEntry 12 }

copsClientInErrs OBJECT-TYPE
    SYNTAX Counter32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "A count of the total number of COPS messages that this client
        has received from this COPS server marked for this Client-Type
        that contained errors in syntax. This value is cumulative since
        agent restart and is not zeroed on new connections."
    -- 1.3.6.1.2.1.89.1.2.1.1.13 -- ::= { copsClientServerCurrentEntry 13 }

copsClientLastError OBJECT-TYPE
    SYNTAX CopsErrorCode
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The code contained in the last COPS protocol Error Object
        received by this client from this COPS server marked for this
        Client-Type. This value is not zeroed on COPS Client-Open
        operations."
    REFERENCE "RFC 2748 section 2.2.8"
    -- 1.3.6.1.2.1.89.1.2.1.1.14 -- ::= { copsClientServerCurrentEntry 14 }

copsClientTcpConnectAttempts OBJECT-TYPE
    SYNTAX Counter32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "A count of the number of times that this COPS client has tried
        (successfully or otherwise) to open an TCP connection to a COPS
        server. This value is cumulative since agent restart and is not
        zeroed on new connections. This value is not incremented for
        entries representing a non-zero Client-Type."
    -- 1.3.6.1.2.1.89.1.2.1.1.15 -- ::= { copsClientServerCurrentEntry 15 }

copsClientTcpConnectFailures OBJECT-TYPE
    SYNTAX Counter32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "A count of the number of times that this COPS client has failed
        to open an TCP connection to a COPS server. This value is
        cumulative since agent restart and is not zeroed on new
        connections. This value is not incremented for
        entries representing a non-zero Client-Type."
    -- 1.3.6.1.2.1.89.1.2.1.1.16 -- ::= { copsClientServerCurrentEntry 16 }

```

copsClientOpenAttempts OBJECT-TYPE

SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION

"A count of the number of times that this COPS client has tried to perform a COPS Client-Open to a COPS server for this Client-Type. This value is cumulative since agent restart and is not zeroed on new connections."

-- 1.3.6.1.2.1.89.1.2.1.1.17 -- ::= { copsClientServerCurrentEntry 17 }

copsClientOpenFailures OBJECT-TYPE

SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION

"A count of the number of times that this COPS client has failed to perform a COPS Client-Open to a COPS server for this Client-Type. This value is cumulative since agent restart and is not zeroed on new connections."

-- 1.3.6.1.2.1.89.1.2.1.1.18 -- ::= { copsClientServerCurrentEntry 18 }

copsClientErrUnsupportClienttype OBJECT-TYPE

SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION

"A count of the total number of COPS messages that this client has received from COPS servers that referred to Client-Types that are unsupported by this client. This value is cumulative since agent restart and is not zeroed on new connections. This value is not incremented for entries representing a non-zero Client-Type."

-- 1.3.6.1.2.1.89.1.2.1.1.19 -- ::= { copsClientServerCurrentEntry 19 }

copsClientErrUnsupportedVersion OBJECT-TYPE

SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION

"A count of the total number of COPS messages that this client has received from COPS servers marked for this Client-Type that had a COPS protocol Version number that is unsupported by this client. This value is cumulative since agent restart and is not zeroed on new connections."

-- 1.3.6.1.2.1.89.1.2.1.1.20 -- ::= { copsClientServerCurrentEntry 20 }

copsClientErrLengthMismatch OBJECT-TYPE

SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION

"A count of the total number of COPS messages that this client has received from COPS servers marked for this Client-Type that had a COPS protocol Message Length that did not match the actual received message. This value is cumulative since agent restart and is not zeroed on new connections."

-- 1.3.6.1.2.1.89.1.2.1.1.21 -- ::= { copsClientServerCurrentEntry 21 }

copsClientErrUnknownOpcode OBJECT-TYPE

SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION

"A count of the total number of COPS messages that this client has received from COPS servers marked for this Client-Type that had a COPS protocol Op Code that was unrecognised by this client. This value is cumulative since agent restart and is not

```

        zeroed on new connections."
-- 1.3.6.1.2.1.89.1.2.1.1.22 -- ::= { copsClientServerCurrentEntry 22 }

copsClientErrUnknownCnum OBJECT-TYPE
    SYNTAX Counter32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "A count of the total number of COPS messages that this client
        has received from COPS servers marked for this Client-Type that
        contained a COPS protocol object C-Num that was unrecognised by
        this client. This value is cumulative since agent restart and is
        not zeroed on new connections."
-- 1.3.6.1.2.1.89.1.2.1.1.23 -- ::= { copsClientServerCurrentEntry 23 }

copsClientErrBadCtype OBJECT-TYPE
    SYNTAX Counter32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "A count of the total number of COPS messages that this client
        has received from COPS servers marked for this Client-Type that
        contained a COPS protocol object C-Type that was not defined for
        the C-Nums known by this client. This value is cumulative since
        agent restart and is not zeroed on new connections."
-- 1.3.6.1.2.1.89.1.2.1.1.24 -- ::= { copsClientServerCurrentEntry 24 }

copsClientErrBadSends OBJECT-TYPE
    SYNTAX Counter32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "A count of the total number of COPS messages that this client
        attempted to send to COPS servers marked for this Client-Type
        that resulted in a transmit error. This value is cumulative
        since agent restart and is not zeroed on new connections."
-- 1.3.6.1.2.1.89.1.2.1.1.25 -- ::= { copsClientServerCurrentEntry 25 }

copsClientErrWrongObjects OBJECT-TYPE
    SYNTAX Counter32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "A count of the total number of COPS messages that this client
        has received from COPS servers marked for this Client-Type that
        did not contain a permitted set of COPS protocol objects. This
        value is cumulative since agent restart and is not zeroed on new
        connections."
-- 1.3.6.1.2.1.89.1.2.1.1.26 -- ::= { copsClientServerCurrentEntry 26 }

copsClientErrWrongOpcode OBJECT-TYPE
    SYNTAX Counter32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "A count of the total number of COPS messages that this client
        has received from COPS servers marked for this Client-Type that
        had a COPS protocol Op Code that should not have been sent to a
        COPS client e.g. Open-Requests. This value is cumulative since
        agent restart and is not zeroed on new connections."
-- 1.3.6.1.2.1.89.1.2.1.1.27 -- ::= { copsClientServerCurrentEntry 27 }

copsClientKaTimedoutClients OBJECT-TYPE
    SYNTAX Counter32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "A count of the total number of times that this client has
        been shut down for this Client-Type by COPS servers that had

```

detected a COPS protocol Keepalive timeout. This value is cumulative since agent restart and is not zeroed on new connections."

```
-- 1.3.6.1.2.1.89.1.2.1.1.28 -- ::= { copsClientServerCurrentEntry 28 }
```

copsClientErrAuthFailures OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"A count of the total number of times that this client has received a COPS message marked for this Client-Type which could not be authenticated using the authentication mechanism used by this client."

```
-- 1.3.6.1.2.1.89.1.2.1.1.29 -- ::= { copsClientServerCurrentEntry 29 }
```

copsClientErrAuthMissing OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"A count of the total number of times that this client has received a COPS message marked for this Client-Type which did not contain authentication information."

```
-- 1.3.6.1.2.1.89.1.2.1.1.30 -- ::= { copsClientServerCurrentEntry 30 }
```

copsClientConfigGroup OBJECT IDENTIFIER

```
-- 1.3.6.1.2.1.89.1.3 -- ::= { copsClientMIBObjects 3 }
```

copsClientServerConfigTable OBJECT-TYPE

SYNTAX SEQUENCE OF CopsClientServerConfigEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"Table of possible COPS servers to try to connect to in order of copsClientServerConfigPriority. There may be multiple entries in this table for the same server and client-type which specify different security mechanisms: these mechanisms will be attempted by the client in the priority order given. Note that a server learned by means of PDPRedirect always takes priority over any of these configured entries."

```
-- 1.3.6.1.2.1.89.1.3.1 -- ::= { copsClientConfigGroup 1 }
```

copsClientServerConfigEntry OBJECT-TYPE

SYNTAX CopsClientServerConfigEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"A set of configuration information regarding a single COPS server from the point of view of a COPS client."

INDEX {

copsClientServerConfigAddrType,
copsClientServerConfigAddress,
copsClientServerConfigClientType,
copsClientServerConfigAuthType

}

```
-- 1.3.6.1.2.1.89.1.3.1.1 -- ::= { copsClientServerConfigTable 1 }
```

CopsClientServerConfigEntry ::= SEQUENCE {

copsClientServerConfigAddrType InetAddressType,
copsClientServerConfigAddress InetAddress,
copsClientServerConfigClientType INTEGER,
copsClientServerConfigAuthType CopsAuthType,
copsClientServerConfigTcpPort CopsTcpPort,
copsClientServerConfigPriority Integer32,
copsClientServerConfigRowStatus RowStatus

}

copsClientServerConfigAddrType OBJECT-TYPE

SYNTAX InetAddressType
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION

"The type of address in copsClientServerConfigAddress."

-- 1.3.6.1.2.1.89.1.3.1.1.1 -- ::= { copsClientServerConfigEntry 1 }

copsClientServerConfigAddress OBJECT-TYPE

SYNTAX InetAddress
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION

"The IPv4, IPv6 or DNS address of a COPS Server. Note that, since this is an index to the table, the DNS name must be short enough to fit into the maximum length of indices allowed by the management protocol in use."

REFERENCE "RFC 2748 section 2.3"

-- 1.3.6.1.2.1.89.1.3.1.1.2 -- ::= { copsClientServerConfigEntry 2 }

copsClientServerConfigClientType OBJECT-TYPE

SYNTAX INTEGER (0..65535)
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION

"The COPS protocol Client-Type for which this entry applies and for which this COPS server is capable of serving. Multiple Client-Types can be served by a single COPS server."

REFERENCE "RFC 2748 section 6, IANA"

-- 1.3.6.1.2.1.89.1.3.1.1.3 -- ::= { copsClientServerConfigEntry 3 }

copsClientServerConfigAuthType OBJECT-TYPE

SYNTAX CopsAuthType
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION

"The type of authentication mechanism for this COPS client to request when negotiating security at the start of a connection to a COPS server."

REFERENCE "RFC 2748 section 4."

-- 1.3.6.1.2.1.89.1.3.1.1.4 -- ::= { copsClientServerConfigEntry 4 }

copsClientServerConfigTcpPort OBJECT-TYPE

SYNTAX CopsTcpPort
MAX-ACCESS read-create
STATUS current
DESCRIPTION

"The TCP port number on the COPS server to which the client should connect."

-- 1.3.6.1.2.1.89.1.3.1.1.5 -- ::= { copsClientServerConfigEntry 5 }

copsClientServerConfigPriority OBJECT-TYPE

SYNTAX Integer32
MAX-ACCESS read-create
STATUS current
DESCRIPTION

"The priority of this entry relative to other entries. COPS client will attempt to contact COPS servers for the appropriate Client-Type. Higher numbers are tried first. The order to be used amongst server entries with the same priority is undefined. COPS servers that are notified to the client using the COPS protocol PDP-Redirect mechanism are always used in preference to any entries in this table."

-- 1.3.6.1.2.1.89.1.3.1.1.6 -- ::= { copsClientServerConfigEntry 6 }

copsClientServerConfigRowStatus OBJECT-TYPE

```

SYNTAX      RowStatus
MAX-ACCESS  read-create
STATUS      current
DESCRIPTION
    "State of this entry in the table."
-- 1.3.6.1.2.1.89.1.3.1.1.7 -- ::= { copsClientServerConfigEntry 7 }

copsClientServerConfigRetryAlgrm OBJECT-TYPE
SYNTAX      INTEGER {
    other(1),
    sequential(2),
    roundRobin(3) }
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
    "The algorithm by which the client should retry when it
    fails to connect to a COPS server."
DEFVAL      { sequential }
-- 1.3.6.1.2.1.89.1.3.2 -- ::= { copsClientConfigGroup 2 }

copsClientServerConfigRetryCount OBJECT-TYPE
SYNTAX      Unsigned32
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
    "A retry count for use by the retry algorithm. Each retry
    algorithm needs to specify how it uses this value.

    For the 'sequential(2)' algorithm, this value is the
    number of times the client should retry to connect
    to one COPS server before moving on to another.
    For the 'roundRobin(3)' algorithm, this value is not used."
DEFVAL      { 1 }
-- 1.3.6.1.2.1.89.1.3.3 -- ::= { copsClientConfigGroup 3 }

copsClientServerConfigRetryIntv1 OBJECT-TYPE
SYNTAX      TimeInterval
UNITS       "centi-seconds"
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
    "A retry interval for use by the retry algorithm. Each retry
    algorithm needs to specify how it uses this value.

    For the 'sequential(2)' algorithm, this value is the time to
    wait between retries of a connection to the same COPS server.

    For the 'roundRobin(3)' algorithm, the client always attempts
    to connect to each Server in turn, until one succeeds or they
    all fail; if they all fail, then the client waits for the value
    of this interval before restarting the algorithm."
DEFVAL      { 1000 }
-- 1.3.6.1.2.1.89.1.3.4 -- ::= { copsClientConfigGroup 4 }
-----
-- Conformance Information
-----

copsClientConformance OBJECT IDENTIFIER
-- 1.3.6.1.2.1.89.2 -- ::= { copsClientMIB 2 }

copsClientGroups OBJECT IDENTIFIER
-- 1.3.6.1.2.1.89.2.1 -- ::= { copsClientConformance 1 }

copsClientCompliances OBJECT IDENTIFIER
-- 1.3.6.1.2.1.89.2.2 -- ::= { copsClientConformance 2 }
-----
-- units of conformance
-----

```

copsDeviceStatusGroup OBJECT-GROUP

```
OBJECTS {
    copsClientCapabilities,
    copsClientServerTcpPort,
    copsClientServerType,
    copsClientServerAuthType,
    copsClientServerLastConnAttempt,
    copsClientState,
    copsClientServerKeepaliveTime,
    copsClientServerAccountingTime,
    copsClientInPkts,
    copsClientOutPkts,
    copsClientInErrs,
    copsClientLastError,
    copsClientTcpConnectAttempts,
    copsClientTcpConnectFailures,
    copsClientOpenAttempts,
    copsClientOpenFailures,
    copsClientErrUnsupportClienttype,
    copsClientErrUnsupportedVersion,
    copsClientErrLengthMismatch,
    copsClientErrUnknownOpcode,
    copsClientErrUnknownCnum,
    copsClientErrBadCtype,
    copsClientErrBadSends,
    copsClientErrWrongObjects,
    copsClientErrWrongOpcode,
    copsClientKaTimedoutClients,
    copsClientErrAuthFailures,
    copsClientErrAuthMissing
}
```

STATUS current

DESCRIPTION

"A collection of objects for monitoring the status of connections to COPS servers and statistics for a COPS client."

-- 1.3.6.1.2.1.89.2.1.1 -- ::= { copsClientGroups 1 }

copsDeviceConfigGroup OBJECT-GROUP

```
OBJECTS {
    copsClientServerConfigTcpPort,
    copsClientServerConfigPriority,
    copsClientServerConfigRowStatus,
    copsClientServerConfigRetryAlgrm,
    copsClientServerConfigRetryCount,
    copsClientServerConfigRetryIntvl
}
```

STATUS current

DESCRIPTION

"A collection of objects for configuring COPS server information."

-- 1.3.6.1.2.1.89.2.1.2 -- ::= { copsClientGroups 2 }

-- compliance statements

copsClientCompliance MODULE-COMPLIANCE

STATUS current

DESCRIPTION

"The compliance statement for device support of management of the COPS client."

MODULE

```
MANDATORY-GROUPS {
    copsDeviceStatusGroup,
    copsDeviceConfigGroup
}
```

OBJECT copsClientServerConfigTcpPort

MIN-ACCESS read-only

DESCRIPTION

```

        "Write access is required only if the device supports the
        configuration of COPS server information."
OBJECT      copsClientServerConfigPriority
MIN-ACCESS  read-only
DESCRIPTION
        "Write access is required only if the device supports the
        configuration of COPS server information."
OBJECT      copsClientServerConfigRowStatus
MIN-ACCESS  read-only
DESCRIPTION
        "Write access is required only if the device supports the
        configuration of COPS server information."
OBJECT      copsClientServerConfigRetryAlgrm
MIN-ACCESS  read-only
DESCRIPTION
        "Write access is required only if the device supports the
        configuration of COPS server information."
OBJECT      copsClientServerConfigRetryCount
MIN-ACCESS  read-only
DESCRIPTION
        "Write access is required only if the device supports the
        configuration of COPS server information."
OBJECT      copsClientServerConfigRetryIntvl
MIN-ACCESS  read-only
DESCRIPTION
        "Write access is required only if the device supports the
        configuration of COPS server information."
-- 1.3.6.1.2.1.89.2.2.1 -- ::= { copsClientCompliances 1 }

```

END

```

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