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AGENTX-MIB DEFINITIONS ::= BEGIN

IMPORTS

MODULE-IDENTITY,
OBJECT-TYPE,
Unsigned32,
mib-2
 FROM SNMPv2-SMI
SnmpAdminString
 FROM SNMP-FRAMEWORK-MIB
MODULE-COMPLIANCE,
OBJECT-GROUP
 FROM SNMPv2-CONF
TEXTUAL-CONVENTION,
TimeStamp,
TruthValue,
TDomain
 FROM SNMPv2-TC;

agentxMIB MODULE-IDENTITY

LAST-UPDATED "200001100000Z" -- Jan 10, 2000 12:00:00 AM
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DESCRIPTION

"This is the MIB module for the SNMP Agent Extensibility Protocol (AgentX). This MIB module will be implemented by the master agent."
"

REVISION "200001100000Z" -- Jan 10, 2000 12:00:00 AM

DESCRIPTION

"Initial version published as RFC 2742."

-- 1.3.6.1.2.1.74 -- ::= { mib-2 74 }
-- Textual Conventions

AgentxTAddress ::= TEXTUAL-CONVENTION

STATUS current

DESCRIPTION

"Denotes a transport service address. This is identical to the TAddress textual convention (SNMPv2-SMI) except that zero-length values are permitted."
"

SYNTAX OCTET STRING (SIZE (0..255))

-- Administrative assignments

agentxObjects OBJECT IDENTIFIER

-- 1.3.6.1.2.1.74.1 -- ::= { agentxMIB 1 }

agentxGeneral OBJECT IDENTIFIER

-- 1.3.6.1.2.1.74.1.1 -- ::= { agentxObjects 1 }

agentxConnection OBJECT IDENTIFIER

-- 1.3.6.1.2.1.74.1.2 -- ::= { agentxObjects 2 }

agentxSession OBJECT IDENTIFIER

-- 1.3.6.1.2.1.74.1.3 -- ::= { agentxObjects 3 }

agentxRegistration OBJECT IDENTIFIER

-- 1.3.6.1.2.1.74.1.4 -- ::= { agentxObjects 4 }

agentxDefaultTimeout OBJECT-TYPE

SYNTAX INTEGER (0..255)

UNITS "seconds"

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The default length of time, in seconds, that the master agent should allow to elapse after dispatching a message to a session before it regards the subagent as not responding. This is a system-wide value that may override the timeout value associated with a particular session (agentxSessionTimeout) or a particular registered MIB region (agentxRegTimeout). If the associated value of agentxSessionTimeout and agentxRegTimeout are zero, or impractical in accordance with implementation-specific procedure of the master agent, the value represented by this object will be the effective timeout value for the master agent to await a response to a dispatch from a given subagent.

"

DEFVAL { 5 }

-- 1.3.6.1.2.1.74.1.1.1 -- ::= { agentxGeneral 1 }

agentxMasterAgentXVer OBJECT-TYPE

SYNTAX INTEGER (1..255)

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The AgentX protocol version supported by this master agent. The current protocol version is 1. Note that the master agent must also allow interaction with earlier version subagents.

"

-- 1.3.6.1.2.1.74.1.1.2 -- ::= { agentxGeneral 2 }

-- The AgentX Subagent Connection Group

agentxConnTableLastChange OBJECT-TYPE

SYNTAX TimeStamp

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The value of sysUpTime when the last row creation or deletion occurred in the agentxConnectionTable.

"

-- 1.3.6.1.2.1.74.1.2.1 -- ::= { agentxConnection 1 }

agentxConnectionTable OBJECT-TYPE

SYNTAX SEQUENCE OF AgentxConnectionEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"The agentxConnectionTable tracks all current AgentX transport connections. There may be zero, one, or more AgentX sessions

```

        carried on a given AgentX connection.
    "
-- 1.3.6.1.2.1.74.1.2.2 -- ::= { agentxConnection 2 }

agentxConnectionEntry OBJECT-TYPE
    SYNTAX      AgentxConnectionEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "An agentxConnectionEntry contains information describing a
        single AgentX transport connection.  A connection may be
        used to support zero or more AgentX sessions.  An entry is
        created when a new transport connection is established,
        and is destroyed when the transport connection is terminated.
        "
    INDEX {
        agentxConnIndex
    }
-- 1.3.6.1.2.1.74.1.2.2.1 -- ::= { agentxConnectionTable 1 }

AgentxConnectionEntry ::= SEQUENCE {
    agentxConnIndex      Unsigned32,
    agentxConnOpenTime  TimeStamp,
    agentxConnTransportDomain TDomain,
    agentxConnTransportAddress AgentxTAddress
}

agentxConnIndex OBJECT-TYPE
    SYNTAX      Unsigned32 (1..4294967295)
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "agentxConnIndex contains the value that uniquely identifies
        an open transport connection used by this master agent
        to provide AgentX service.  Values of this index should
        not be re-used.  The value assigned to a given transport
        connection is constant for the lifetime of that connection.
        "
-- 1.3.6.1.2.1.74.1.2.2.1.1 -- ::= { agentxConnectionEntry 1 }

agentxConnOpenTime OBJECT-TYPE
    SYNTAX      TimeStamp
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The value of sysUpTime when this connection was established
        and, therefore, its value when this entry was added to the table.
        "
-- 1.3.6.1.2.1.74.1.2.2.1.2 -- ::= { agentxConnectionEntry 2 }

agentxConnTransportDomain OBJECT-TYPE
    SYNTAX      TDomain
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The transport protocol in use for this connection to the
        subagent.
        "
-- 1.3.6.1.2.1.74.1.2.2.1.3 -- ::= { agentxConnectionEntry 3 }

agentxConnTransportAddress OBJECT-TYPE
    SYNTAX      AgentxTAddress
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The transport address of the remote (subagent) end of this
        connection to the master agent.  This object may be zero-length
        for unix-domain sockets (and possibly other types of transport

```

addresses) since the subagent need not bind a filename to its local socket.

"

```
-- 1.3.6.1.2.1.74.1.2.2.1.4 -- ::= { agentxConnectionEntry 4 }  
-- The AgentX Subagent Session Group
```

agentxSessionTableLastChange OBJECT-TYPE

SYNTAX TimeStamp

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The value of sysUpTime when the last row creation or deletion occurred in the agentxSessionTable.

"

```
-- 1.3.6.1.2.1.74.1.3.1 -- ::= { agentxSession 1 }
```

agentxSessionTable OBJECT-TYPE

SYNTAX SEQUENCE OF AgentxSessionEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"A table of AgentX subagent sessions currently in effect.

"

```
-- 1.3.6.1.2.1.74.1.3.2 -- ::= { agentxSession 2 }
```

agentxSessionEntry OBJECT-TYPE

SYNTAX AgentxSessionEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"Information about a single open session between the AgentX master agent and a subagent is contained in this entry. An entry is created when a new session is successfully established and is destroyed either when the subagent transport connection has terminated or when the subagent session is closed.

"

INDEX {
 agentxConnIndex,
 agentxSessionIndex
}

```
-- 1.3.6.1.2.1.74.1.3.2.1 -- ::= { agentxSessionTable 1 }
```

AgentxSessionEntry ::= SEQUENCE {

 agentxSessionIndex Unsigned32,
 agentxSessionObjectID OBJECT IDENTIFIER,
 agentxSessionDescr SnmpAdminString,
 agentxSessionAdminStatus INTEGER,
 agentxSessionOpenTime TimeStamp,
 agentxSessionAgentXVer INTEGER,
 agentxSessionTimeout INTEGER

}

agentxSessionIndex OBJECT-TYPE

SYNTAX Unsigned32 (0..4294967295)

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"A unique index for the subagent session. It is the same as h.sessionID defined in the agentx header. Note that if a subagent's session with the master agent is closed for any reason its index should not be re-used.

A value of zero(0) is specifically allowed in order to be compatible with the definition of h.sessionId.

"

```
-- 1.3.6.1.2.1.74.1.3.2.1.1 -- ::= { agentxSessionEntry 1 }
```

agentxSessionObjectID OBJECT-TYPE

SYNTAX OBJECT IDENTIFIER

MAX-ACCESS read-only
STATUS current
DESCRIPTION
"This is taken from the o.id field of the agentx-Open-PDU. This attribute will report a value of '0.0' for subagents not supporting the notion of an AgentX session object identifier.
"

-- 1.3.6.1.2.1.74.1.3.2.1.2 -- ::= { agentxSessionEntry 2 }

agentxSessionDescr OBJECT-TYPE

SYNTAX SnmpAdminString
MAX-ACCESS read-only
STATUS current
DESCRIPTION

"A textual description of the session. This is analogous to sysDescr defined in the SNMPv2-MIB in RFC 1907 [19] and is taken from the o.descr field of the agentx-Open-PDU. This attribute will report a zero-length string value for subagents not supporting the notion of a session description.
"

-- 1.3.6.1.2.1.74.1.3.2.1.3 -- ::= { agentxSessionEntry 3 }

agentxSessionAdminStatus OBJECT-TYPE

SYNTAX INTEGER {
up(1),
down(2) }
MAX-ACCESS read-write
STATUS current
DESCRIPTION

"The administrative (desired) status of the session. Setting the value to 'down(2)' closes the subagent session (with c.reason set to 'reasonByManager').
"

-- 1.3.6.1.2.1.74.1.3.2.1.4 -- ::= { agentxSessionEntry 4 }

agentxSessionOpenTime OBJECT-TYPE

SYNTAX TimeStamp
MAX-ACCESS read-only
STATUS current
DESCRIPTION

"The value of sysUpTime when this session was opened and, therefore, its value when this entry was added to the table.
"

-- 1.3.6.1.2.1.74.1.3.2.1.5 -- ::= { agentxSessionEntry 5 }

agentxSessionAgentXVer OBJECT-TYPE

SYNTAX INTEGER (1..255)
MAX-ACCESS read-only
STATUS current
DESCRIPTION

"The version of the AgentX protocol supported by the session. This must be less than or equal to the value of agentxMasterAgentXVer.
"

-- 1.3.6.1.2.1.74.1.3.2.1.6 -- ::= { agentxSessionEntry 6 }

agentxSessionTimeout OBJECT-TYPE

SYNTAX INTEGER (0..255)
UNITS "seconds"
MAX-ACCESS read-only
STATUS current
DESCRIPTION

"The length of time, in seconds, that a master agent should allow to elapse after dispatching a message to this session before it regards the subagent as not responding. This value is taken from the o.timeout field of the agentx-Open-PDU. This is a session-specific value that may be overridden by values associated with the specific registered MIB regions

(see `agentxRegTimeout`). A value of zero(0) indicates that the master agent's default timeout value should be used (see `agentxDefaultTimeout`).

"

```
-- 1.3.6.1.2.1.74.1.3.2.1.7 -- ::= { agentxSessionEntry 7 }  
-- The AgentX Registration Group
```

agentxRegistrationTableLastChange OBJECT-TYPE

SYNTAX TimeStamp

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The value of `sysUpTime` when the last row creation or deletion occurred in the `agentxRegistrationTable`.

"

```
-- 1.3.6.1.2.1.74.1.4.1 -- ::= { agentxRegistration 1 }
```

agentxRegistrationTable OBJECT-TYPE

SYNTAX SEQUENCE OF AgentxRegistrationEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"A table of registered regions.

"

```
-- 1.3.6.1.2.1.74.1.4.2 -- ::= { agentxRegistration 2 }
```

agentxRegistrationEntry OBJECT-TYPE

SYNTAX AgentxRegistrationEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"Contains information for a single registered region. An entry is created when a session successfully registers a region and is destroyed for any of three reasons: this region is unregistered by the session, the session is closed, or the subagent connection is closed.

"

INDEX {
 agentxConnIndex,
 agentxSessionIndex,
 agentxRegIndex
}

```
-- 1.3.6.1.2.1.74.1.4.2.1 -- ::= { agentxRegistrationTable 1 }
```

AgentxRegistrationEntry ::= SEQUENCE {

 agentxRegIndex Unsigned32,
 agentxRegContext OCTET STRING,
 agentxRegStart OBJECT IDENTIFIER,
 agentxRegRangeSubId Unsigned32,
 agentxRegUpperBound Unsigned32,
 agentxRegPriority Unsigned32,
 agentxRegTimeout INTEGER,
 agentxRegInstance TruthValue

}

agentxRegIndex OBJECT-TYPE

SYNTAX Unsigned32 (1..4294967295)

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"`agentxRegIndex` uniquely identifies a registration entry. This value is constant for the lifetime of an entry.

"

```
-- 1.3.6.1.2.1.74.1.4.2.1.1 -- ::= { agentxRegistrationEntry 1 }
```

agentxRegContext OBJECT-TYPE

SYNTAX OCTET STRING

MAX-ACCESS read-only

```

STATUS      current
DESCRIPTION
    "The context in which the session supports the objects in this
    region. A zero-length context indicates the default context.
    "
-- 1.3.6.1.2.1.74.1.4.2.1.2 -- ::= { agentxRegistrationEntry 2 }

agentxRegStart OBJECT-TYPE
SYNTAX      OBJECT IDENTIFIER
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The starting OBJECT IDENTIFIER of this registration entry. The
    session identified by agentxSessionIndex implements objects
    starting at this value (inclusive). Note that this value could
    identify an object type, an object instance, or a partial object
    instance.
    "
-- 1.3.6.1.2.1.74.1.4.2.1.3 -- ::= { agentxRegistrationEntry 3 }

agentxRegRangeSubId OBJECT-TYPE
SYNTAX      Unsigned32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "agentxRegRangeSubId is used to specify the range. This is
    taken from r.region_subid in the registration PDU. If the value
    of this object is zero, no range is specified. If it is non-zero,
    it identifies the `nth' sub-identifier in r.region for which
    this entry's agentxRegUpperBound value is substituted in the
    OID for purposes of defining the region's upper bound.
    "
-- 1.3.6.1.2.1.74.1.4.2.1.4 -- ::= { agentxRegistrationEntry 4 }

agentxRegUpperBound OBJECT-TYPE
SYNTAX      Unsigned32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "agentxRegUpperBound represents the upper-bound sub-identifier in
    a registration. This is taken from the r.upper_bound in the
    registration PDU. If agentxRegRangeSubid (r.region_subid) is
    zero, this value is also zero and is not used to define an upper
    bound for this registration.
    "
-- 1.3.6.1.2.1.74.1.4.2.1.5 -- ::= { agentxRegistrationEntry 5 }

agentxRegPriority OBJECT-TYPE
SYNTAX      Unsigned32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The registration priority. Lower values have higher priority.
    This value is taken from r.priority in the register PDU.
    Sessions should use the value of 127 for r.priority if a
    default value is desired.
    "
-- 1.3.6.1.2.1.74.1.4.2.1.6 -- ::= { agentxRegistrationEntry 6 }

agentxRegTimeout OBJECT-TYPE
SYNTAX      INTEGER (0..255)
UNITS      "seconds"
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The timeout value, in seconds, for responses to
    requests associated with this registered MIB region.
    A value of zero(0) indicates the default value (indicated
    by by agentxSessionTimeout or agentxDefaultTimeout) is to

```

be used. This value is taken from the r.timeout field of the agentx-Register-PDU.

"

```
-- 1.3.6.1.2.1.74.1.4.2.1.7 -- ::= { agentxRegistrationEntry 7 }
```

agentxRegInstance OBJECT-TYPE

SYNTAX TruthValue

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The value of agentxRegInstance is 'true' for registrations for which the INSTANCE_REGISTRATION was set, and is 'false' for all other registrations.

"

```
-- 1.3.6.1.2.1.74.1.4.2.1.8 -- ::= { agentxRegistrationEntry 8 }
```

-- Conformance Statements for AgentX

agentxConformance OBJECT IDENTIFIER

```
-- 1.3.6.1.2.1.74.2 -- ::= { agentxMIB 2 }
```

agentxMIBGroups OBJECT IDENTIFIER

```
-- 1.3.6.1.2.1.74.2.1 -- ::= { agentxConformance 1 }
```

agentxMIBCompliances OBJECT IDENTIFIER

```
-- 1.3.6.1.2.1.74.2.2 -- ::= { agentxConformance 2 }
```

-- Compliance Statements for AgentX

agentxMIBCompliance MODULE-COMPLIANCE

STATUS current

DESCRIPTION

"The compliance statement for SNMP entities that implement the AgentX protocol. Note that a compliant agent can implement all objects in this MIB module as read-only.

"

MODULE

MANDATORY-GROUPS {
 agentxMIBGroup

}

OBJECT agentxSessionAdminStatus

MIN-ACCESS read-only

DESCRIPTION

"Write access is not required.

"

```
-- 1.3.6.1.2.1.74.2.2.1 -- ::= { agentxMIBCompliances 1 }
```

agentxMIBGroup OBJECT-GROUP

OBJECTS {
 agentxDefaultTimeout,
 agentxMasterAgentXVer,
 agentxConnTableLastChange,
 agentxConnOpenTime,
 agentxConnTransportDomain,
 agentxConnTransportAddress,
 agentxSessionTableLastChange,
 agentxSessionTimeout,
 agentxSessionObjectID,
 agentxSessionDescr,
 agentxSessionAdminStatus,
 agentxSessionOpenTime,
 agentxSessionAgentXVer,
 agentxRegistrationTableLastChange,
 agentxRegContext,
 agentxRegStart,
 agentxRegRangeSubId,
 agentxRegUpperBound,
 agentxRegPriority,
 agentxRegTimeout,
 agentxRegInstance
}

STATUS current

DESCRIPTION

"All accessible objects in the AgentX MIB.

"

-- 1.3.6.1.2.1.74.2.1.1 -- ::= { agentxMIBGroups 1 }

END

--
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