

TCP-MIB DEFINITIONS ::= BEGIN

IMPORTS

MODULE-IDENTITY,
OBJECT-TYPE,
Integer32,
Gauge32,
Counter32,
IpAddress,
mib-2
FROM SNMPv2-SMI
MODULE-COMPLIANCE,
OBJECT-GROUP
FROM SNMPv2-CONF;

tcpMIB MODULE-IDENTITY

LAST-UPDATED "9411010000Z" -- Nov 1, 1994 12:00:00 AM
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DESCRIPTION

"The MIB module for managing TCP implementations."

REVISION "9103310000Z" -- Mar 31, 1991 12:00:00 AM

DESCRIPTION

"The initial revision of this MIB module was part of MIB-II."

-- 1.3.6.1.2.1.49 -- ::= { mib-2 49 }
-- the TCP group

tcp OBJECT IDENTIFIER

-- 1.3.6.1.2.1.6 -- ::= { mib-2 6 }

tcpRtoAlgorithm OBJECT-TYPE

SYNTAX INTEGER {
other(1), -- none of the following
constant(2), -- a constant rto
rsre(3), -- MIL-STD-1778, Appendix B
vanj(4) -- Van Jacobson's algorithm [5]
}

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The algorithm used to determine the timeout value used for retransmitting unacknowledged octets."

-- 1.3.6.1.2.1.6.1 -- ::= { tcp 1 }

tcpRtoMin OBJECT-TYPE

SYNTAX Integer32
UNITS "milliseconds"
MAX-ACCESS read-only
STATUS current
DESCRIPTION

"The minimum value permitted by a TCP implementation for the retransmission timeout, measured in milliseconds. More refined semantics for objects of this type depend upon the algorithm used to determine the retransmission timeout. In particular, when the timeout algorithm is rsre(3), an object of this type has the semantics of the LBOUND quantity described in RFC 793."

-- 1.3.6.1.2.1.6.2 -- ::= { tcp 2 }

tcpRtoMax OBJECT-TYPE

SYNTAX Integer32
UNITS "milliseconds"
MAX-ACCESS read-only
STATUS current
DESCRIPTION

"The maximum value permitted by a TCP implementation for the retransmission timeout, measured in milliseconds. More refined semantics for objects of this type depend upon the algorithm used to determine the retransmission timeout. In particular, when the timeout algorithm is rsre(3), an object of this type has the semantics of the UBOUND quantity described in RFC 793."

-- 1.3.6.1.2.1.6.3 -- ::= { tcp 3 }

tcpMaxConn OBJECT-TYPE

SYNTAX Integer32
MAX-ACCESS read-only
STATUS current
DESCRIPTION

"The limit on the total number of TCP connections the entity can support. In entities where the maximum number of connections is dynamic, this object should contain the value -1."

-- 1.3.6.1.2.1.6.4 -- ::= { tcp 4 }

tcpActiveOpens OBJECT-TYPE

SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION

"The number of times TCP connections have made a direct transition to the SYN-SENT state from the CLOSED state."

-- 1.3.6.1.2.1.6.5 -- ::= { tcp 5 }

tcpPassiveOpens OBJECT-TYPE

SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION

"The number of times TCP connections have made a direct transition to the SYN-RCVD state from the LISTEN state."

-- 1.3.6.1.2.1.6.6 -- ::= { tcp 6 }

tcpAttemptFails OBJECT-TYPE

SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION

"The number of times TCP connections have made a direct transition to the CLOSED state from either the SYN-SENT state or the SYN-RCVD state, plus the number of times TCP connections have made a direct transition to the LISTEN state from the SYN-RCVD state."

-- 1.3.6.1.2.1.6.7 -- ::= { tcp 7 }

tcpEstabResets OBJECT-TYPE

SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION

"The number of times TCP connections have made a direct transition to the CLOSED state from either the ESTABLISHED state or the CLOSE-WAIT state."

-- 1.3.6.1.2.1.6.8 -- ::= { tcp 8 }

tcpCurrEstab OBJECT-TYPE

SYNTAX Gauge32

```

MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of TCP connections for which the current state
    is either ESTABLISHED or CLOSE-WAIT."
-- 1.3.6.1.2.1.6.9 -- ::= { tcp 9 }

tcpInSegs OBJECT-TYPE
    SYNTAX Counter32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The total number of segments received, including those
        received in error. This count includes segments received on
        currently established connections."
-- 1.3.6.1.2.1.6.10 -- ::= { tcp 10 }

tcpOutSegs OBJECT-TYPE
    SYNTAX Counter32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The total number of segments sent, including those on
        current connections but excluding those containing only
        retransmitted octets."
-- 1.3.6.1.2.1.6.11 -- ::= { tcp 11 }

tcpRetransSegs OBJECT-TYPE
    SYNTAX Counter32
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The total number of segments retransmitted - that is, the
        number of TCP segments transmitted containing one or more
        previously transmitted octets."
-- 1.3.6.1.2.1.6.12 -- ::= { tcp 12 }
-- the TCP Connection table
-- The TCP connection table contains information about this
-- entity's existing TCP connections.

tcpConnTable OBJECT-TYPE
    SYNTAX SEQUENCE OF TcpConnEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "A table containing TCP connection-specific information."
-- 1.3.6.1.2.1.6.13 -- ::= { tcp 13 }

tcpConnEntry OBJECT-TYPE
    SYNTAX TcpConnEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "A conceptual row of the tcpConnTable containing information
        about a particular current TCP connection. Each row of this
        table is transient, in that it ceases to exist when (or soon
        after) the connection makes the transition to the CLOSED
        state."
    INDEX {
        tcpConnLocalAddress,
        tcpConnLocalPort,
        tcpConnRemAddress,
        tcpConnRemPort
    }
-- 1.3.6.1.2.1.6.13.1 -- ::= { tcpConnTable 1 }

TcpConnEntry ::= SEQUENCE {
    tcpConnState INTEGER,
    tcpConnLocalAddress IpAddress,

```

```
tcpConnLocalPort    INTEGER,  
tcpConnRemAddress  IpAddress,  
tcpConnRemPort     INTEGER
```

```
}
```

tcpConnState OBJECT-TYPE

```
SYNTAX      INTEGER {  
    closed(1),  
    listen(2),  
    synSent(3),  
    synReceived(4),  
    established(5),  
    finWait1(6),  
    finWait2(7),  
    closeWait(8),  
    lastAck(9),  
    closing(10),  
    timeWait(11),  
    deleteTCB(12) }
```

```
MAX-ACCESS  read-write
```

```
STATUS      current
```

DESCRIPTION

"The state of this TCP connection.

The only value which may be set by a management station is deleteTCB(12). Accordingly, it is appropriate for an agent to return a 'badValue' response if a management station attempts to set this object to any other value.

If a management station sets this object to the value deleteTCB(12), then this has the effect of deleting the TCB (as defined in RFC 793) of the corresponding connection on the managed node, resulting in immediate termination of the connection.

As an implementation-specific option, a RST segment may be sent from the managed node to the other TCP endpoint (note however that RST segments are not sent reliably)."

```
-- 1.3.6.1.2.1.6.13.1.1 -- ::= { tcpConnEntry 1 }
```

tcpConnLocalAddress OBJECT-TYPE

```
SYNTAX      IpAddress
```

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

```
STATUS      current
```

DESCRIPTION

"The local IP address for this TCP connection. In the case of a connection in the listen state which is willing to accept connections for any IP interface associated with the node, the value 0.0.0.0 is used."

```
-- 1.3.6.1.2.1.6.13.1.2 -- ::= { tcpConnEntry 2 }
```

tcpConnLocalPort OBJECT-TYPE

```
SYNTAX      INTEGER (0..65535)
```

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

```
STATUS      current
```

DESCRIPTION

"The local port number for this TCP connection."

```
-- 1.3.6.1.2.1.6.13.1.3 -- ::= { tcpConnEntry 3 }
```

tcpConnRemAddress OBJECT-TYPE

```
SYNTAX      IpAddress
```

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

```
STATUS      current
```

DESCRIPTION

"The remote IP address for this TCP connection."

```
-- 1.3.6.1.2.1.6.13.1.4 -- ::= { tcpConnEntry 4 }
```

tcpConnRemPort OBJECT-TYPE

```

SYNTAX      INTEGER (0..65535)
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The remote port number for this TCP connection."
-- 1.3.6.1.2.1.6.13.1.5 -- ::= { tcpConnEntry 5 }

tcpInErrs OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The total number of segments received in error (e.g., bad
    TCP checksums)."
-- 1.3.6.1.2.1.6.14 -- ::= { tcp 14 }

tcpOutRsts OBJECT-TYPE
SYNTAX      Counter32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of TCP segments sent containing the RST flag."
-- 1.3.6.1.2.1.6.15 -- ::= { tcp 15 }
-- conformance information

tcpMIBConformance OBJECT IDENTIFIER
-- 1.3.6.1.2.1.49.2 -- ::= { tcpMIB 2 }

tcpMIBCompliances OBJECT IDENTIFIER
-- 1.3.6.1.2.1.49.2.1 -- ::= { tcpMIBConformance 1 }

tcpMIBGroups OBJECT IDENTIFIER
-- 1.3.6.1.2.1.49.2.2 -- ::= { tcpMIBConformance 2 }
-- compliance statements

tcpMIBCompliance MODULE-COMPLIANCE
STATUS      current
DESCRIPTION
    "The compliance statement for SNMPv2 entities which
    implement TCP."
MODULE
MANDATORY-GROUPS {
    tcpGroup
}
-- 1.3.6.1.2.1.49.2.1.1 -- ::= { tcpMIBCompliances 1 }
-- units of conformance

tcpGroup OBJECT-GROUP
OBJECTS {
    tcpRtoAlgorithm,
    tcpRtoMin,
    tcpRtoMax,
    tcpMaxConn,
    tcpActiveOpens,
    tcpPassiveOpens,
    tcpAttemptFails,
    tcpEstabResets,
    tcpCurrEstab,
    tcpInSegs,
    tcpOutSegs,
    tcpRetransSegs,
    tcpConnState,
    tcpConnLocalAddress,
    tcpConnLocalPort,
    tcpConnRemAddress,
    tcpConnRemPort,
    tcpInErrs,
    tcpOutRsts
}

```

STATUS current

DESCRIPTION

"The tcp group of objects providing for management of TCP entities."

-- 1.3.6.1.2.1.49.2.2.1 -- ::= { tcpMIBGroups 1 }

END