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APPLICATION-MIB DEFINITIONS ::= BEGIN

IMPORTS

MODULE-IDENTITY,  
OBJECT-TYPE,  
Counter64,  
Counter32,  
Gauge32,  
mib-2,  
Unsigned32,  
zeroDotZero  
    FROM SNMPv2-SMI  
DateAndTime,  
TEXTUAL-CONVENTION,  
TestAndIncr,  
TDomain,  
TimeStamp,  
TruthValue  
    FROM SNMPv2-TC  
SnmpAdminString  
    FROM SNMP-FRAMEWORK-MIB  
MODULE-COMPLIANCE,  
OBJECT-GROUP  
    FROM SNMPv2-CONF  
LongUtf8String,  
sysAppElmtRunIndex  
    FROM SYSAPPL-MIB;

applicationMib MODULE-IDENTITY

LAST-UPDATED "9811171815Z" -- Nov 17, 1998 6:15:00 PM

ORGANIZATION "Application MIB Working Group"

CONTACT-INFO

"<http://www.ietf.org/html.charters/applmib-charter.html>

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DESCRIPTION

"This MIB defines objects representing generic aspects of applications that are of interest to management but typically require instrumentation within managed application elements."  
"

-- 1.3.6.1.2.1.62 -- ::= { mib-2 62 }

--  
-- Registration hierarchy for this MIB  
--

applicationMibObjects OBJECT IDENTIFIER

-- 1.3.6.1.2.1.62.1 -- ::= { applicationMib 1 }

applicationMibConformance OBJECT IDENTIFIER

-- 1.3.6.1.2.1.62.2 -- ::= { applicationMib 2 }

--  
-- Groups defined in this MIB  
--

applServiceGroup OBJECT IDENTIFIER

-- 1.3.6.1.2.1.62.1.1 -- ::= { applicationMibObjects 1 }

**applChannelGroup OBJECT IDENTIFIER**  
-- 1.3.6.1.2.1.62.1.2 -- ::= { applicationMibObjects 2 }

**applPastChannelGroup OBJECT IDENTIFIER**  
-- 1.3.6.1.2.1.62.1.3 -- ::= { applicationMibObjects 3 }

**applElmtRunControlGroup OBJECT IDENTIFIER**  
-- 1.3.6.1.2.1.62.1.4 -- ::= { applicationMibObjects 4 }

**Unsigned64TC ::= TEXTUAL-CONVENTION**  
STATUS current  
DESCRIPTION  
"A non-negative 64-bit bit integer, without counter semantics."  
SYNTAX Counter64

**ApplTAddress ::= TEXTUAL-CONVENTION**  
STATUS current  
DESCRIPTION  
"Denotes a transport service address.  
  
For snmpUDPDomain, an ApplTAddress is 6 octets long, the initial 4 octets containing the IP-address in network-byte order and the last 2 containing the UDP port in network-byte order. Consult 'Transport Mappings for Version 2 of the Simple Network Management Protocol (SNMPv2)' for further information on snmpUDPDomain."  
SYNTAX OCTET STRING (SIZE (0..255))

-- \*\*\*\*\*  
--

-- applServiceGroup -  
--  
-- The service-level tables permit the identification of one  
-- or more instances of named services on a system, and the  
-- association of running application elements to services.  
--

-- \*\*\*\*\*  
-- \*\*\*\*\*

-- The service name to service instance table  
--  
-- \*\*\*\*\*

**applSrvNameToSrvInstTable OBJECT-TYPE**  
SYNTAX SEQUENCE OF ApplSrvNameToSrvInstEntry  
MAX-ACCESS not-accessible  
STATUS current  
DESCRIPTION  
"The service name to service instance table uses service name as its primary key, and service instance identifier as its secondary key. It facilitates the identification and lookup of the instances of a given service in a system."  
-- 1.3.6.1.2.1.62.1.1.1 -- ::= { applServiceGroup 1 }

**applSrvNameToSrvInstEntry OBJECT-TYPE**  
SYNTAX ApplSrvNameToSrvInstEntry  
MAX-ACCESS not-accessible  
STATUS current  
DESCRIPTION  
"An applSrvNameToSrvInstEntry identifies an instance of a given service. The allocation and reservation of unique values for applSrvIndex is an administrative issue.  
  
An applSrvNameToSrvInstEntry exists for the lifetime of that instance of that service; the index values may not change during that lifetime."

```

INDEX {
    applSrvName,
    applSrvIndex
}
-- 1.3.6.1.2.1.62.1.1.1.1 -- ::= { applSrvNameToSrvInstTable 1 }

ApplSrvNameToSrvInstEntry ::= SEQUENCE {
    applSrvInstQual SnmpAdminString
}

applSrvInstQual OBJECT-TYPE
    SYNTAX      SnmpAdminString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The value of applSrcInstQual provides additional
        information about this particular instance of this
        service.

        Although not used for indexing purposes, the value of
        this attribute should be sufficiently unique to be
        helpful to an administrator in distinguishing among
        service instances."
-- 1.3.6.1.2.1.62.1.1.1.1 -- ::= { applSrvNameToSrvInstEntry 1 }
-- *****
--
--      Service instance to Service Name table
--
-- *****

applSrvInstToSrvNameTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF ApplSrvInstToSrvNameEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The service instance to service name table uses
        service instance identifier as its primary key, and
        service name as its secondary key. Given a service
        instance identifier, it facilitates the lookup of the
        name of the service being provided."
-- 1.3.6.1.2.1.62.1.1.2 -- ::= { applServiceGroup 2 }

applSrvInstToSrvNameEntry OBJECT-TYPE
    SYNTAX      ApplSrvInstToSrvNameEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "An applSrvInstToSrvNameEntry maps a service instance
        identifier back to a service name."
    INDEX {
        applSrvIndex,
        applSrvName
    }
-- 1.3.6.1.2.1.62.1.1.2.1 -- ::= { applSrvInstToSrvNameTable 1 }

ApplSrvInstToSrvNameEntry ::= SEQUENCE {
    applSrvName SnmpAdminString
}

applSrvName OBJECT-TYPE
    SYNTAX      SnmpAdminString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The human-readable name of a service. Where
        appropriate, as in the case where a service can be
        identified in terms of a single protocol, the strings

```

should be established names such as those assigned by IANA and found in STD 2 [13], or defined by some other authority. In some cases private conventions apply and the string should in these cases be consistent with these non-standard conventions. An applicability statement may specify the service name(s) to be used.

```

-- 1.3.6.1.2.1.62.1.1.2.1.1 -- ::= { applSrvInstToSrvNameEntry 1 }
-- *****
--
-- The service instance to running application element table
--
-- *****

```

**applSrvInstToRunApplElmtTable OBJECT-TYPE**

```

SYNTAX      SEQUENCE OF ApplSrvInstToRunApplElmtEntry
MAX-ACCESS  not-accessible
STATUS      current
DESCRIPTION

```

*"The service instance to running application element table uses the service instance identifier as its primary key, and the running application element index as its secondary key. This facilitates the identification of the set of running application elements providing a given instance of a service."*

```

-- 1.3.6.1.2.1.62.1.1.3 -- ::= { applServiceGroup 3 }

```

**applSrvInstToRunApplElmtEntry OBJECT-TYPE**

```

SYNTAX      ApplSrvInstToRunApplElmtEntry
MAX-ACCESS  not-accessible
STATUS      current
DESCRIPTION

```

*"An applSrvInstToRunApplElmtEntry identifies a running application element providing an instance of a service. Note that there may be multiple running application elements involved in the provision of an instance of a service."*

```

INDEX {
    applSrvIndex,
    sysApplElmtRunIndex
}

```

```

-- 1.3.6.1.2.1.62.1.1.3.1 -- ::= { applSrvInstToRunApplElmtTable 1 }

```

```

ApplSrvInstToRunApplElmtEntry ::= SEQUENCE {
    applSrvIndex Unsigned32
}

```

**applSrvIndex OBJECT-TYPE**

```

SYNTAX      Unsigned32 (1..4294967295)
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION

```

*"An applSrvIndex is the system-unique identifier of an instance of a service. The value is unique not only across all instances of a given service, but also across all services in a system."*

*Re-use of values for this index should be avoided. No two service instances in a given system shall concurrently have the same value for this index.*

*The value zero is excluded from the set of permitted values for this index. This allows other tables to potentially represent things which cannot be associated with a specific service instance.*

```

-- 1.3.6.1.2.1.62.1.1.3.1.1 -- ::= { applSrvInstToRunApplElmtEntry 1 }

```

```

-- *****
--
-- The running application element to service instance table
--
-- *****

```

**applRunAppElmtToSrvInstTable OBJECT-TYPE**

```

SYNTAX      SEQUENCE OF ApplRunAppElmtToSrvInstEntry
MAX-ACCESS  not-accessible
STATUS      current
DESCRIPTION

```

*"The running application element to service instance table uses the running application element index as its primary key and the service instance identifier as its secondary key. It identifies the set of services provided by a given running application element."*

```

-- 1.3.6.1.2.1.62.1.1.4 -- ::= { applServiceGroup 4 }

```

**applRunAppElmtToSrvInstEntry OBJECT-TYPE**

```

SYNTAX      ApplRunAppElmtToSrvInstEntry
MAX-ACCESS  not-accessible
STATUS      current
DESCRIPTION

```

*"An applRunAppElmtToSrvInstEntry serves to identify an instance of a service being provided by a given running application element. Note that a particular running application element may provide multiple services."*

```

INDEX {
    sysAppElmtRunIndex,
    applSrvInstance
}

```

```

-- 1.3.6.1.2.1.62.1.1.4.1 -- ::= { applRunAppElmtToSrvInstTable 1 }

```

```

ApplRunAppElmtToSrvInstEntry ::= SEQUENCE {
    applSrvInstance Unsigned32
}

```

**applSrvInstance OBJECT-TYPE**

```

SYNTAX      Unsigned32 (1..4294967295)
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION

```

*"An applSrvInstance is the system-unique identifier of an instance of a service. The value is unique not only across all instances of a given service, but also across all services."*

*Re-use of values for this index should be avoided. No two service instances in a given system shall concurrently have the same value for this index. The value zero is excluded from the set of permitted values for this index. This allows other tables to potentially represent things which cannot be associated with a specific service instance.*

*This attribute is semantically identical to applSrvIndex."*

```

-- 1.3.6.1.2.1.62.1.1.4.1.1 -- ::= { applRunAppElmtToSrvInstEntry 1 }

```

```

-- *****

```

**applChannelGroup - group with tables for I/O**

```

--
-- In this group, the common abstraction is the Channel.
-- Channels are realized as files or connections.
-- The information flowing on a channel can always be
-- measured in terms of a byte stream. Furthermore, for many
-- channels, this information may also be measured in terms
-- of transactions.

```

```
--
-- For all of these tables, the first two indexes determines
-- whether what is being measured is for a single running
-- application element or for an instance of a service.
--
-- The second index identifies the running application element
-- or service instance.
--
-- The third index is the channel id, which uniquely identifies
-- a channel within the context of a running application element
-- or service instance.
--
-- Any remaining indexes are table-specific.
```

```
-- *****
-- *****
```

```
-- applOpenChannelTable - Table of Open Channels
```

```
-- *****
```

**applOpenChannelTable OBJECT-TYPE**

**SYNTAX** SEQUENCE OF ApplOpenChannelEntry

**MAX-ACCESS** not-accessible

**STATUS** current

**DESCRIPTION**

*"The applOpenChannelTable reports information on open channels for running application elements and for service instances. This table is indexed by applElmtOrSvc, applElmtOrSvcId, and applOpenChannelIndex. This effectively groups all entries for a given running application element or service instance together. ApplChannelIndex uniquely identifies an open channel (and, consequently, a file or connection) within the context of a particular running application element or service instance.*

*Some of the information in this table is available through both sixty-four and thirty-two bit counters. The sixty-four bit counters are not accessible in protocols that do not support this data type."*

```
-- 1.3.6.1.2.1.62.1.2.1 -- ::= { applChannelGroup 1 }
```

**applOpenChannelEntry OBJECT-TYPE**

**SYNTAX** ApplOpenChannelEntry

**MAX-ACCESS** not-accessible

**STATUS** current

**DESCRIPTION**

*"An applOpenChannelEntry indicates that a channel has been opened by this running application element or service instance and is still open. Note that if a file has been opened multiple times, even by the same process, it will have multiple channel entries."*

**INDEX** {  
    applElmtOrSvc,  
    applElmtOrSvcId,  
    applOpenChannelIndex  
}

```
-- 1.3.6.1.2.1.62.1.2.1.1 -- ::= { applOpenChannelTable 1 }
```

```
ApplOpenChannelEntry ::= SEQUENCE {
    applElmtOrSvc          INTEGER,
    applElmtOrSvcId       Unsigned32,
    applOpenChannelIndex  Unsigned32,
    applOpenChannelOpenTime  TimeStamp,
    applOpenChannelReadRequests  Counter64,
    applOpenChannelReadRequestsLow Counter32,
    applOpenChannelReadFailures Counter32,
    applOpenChannelBytesRead Counter64,
```

```

        applOpenChannelBytesReadLow      Counter32,
        applOpenChannelLastReadTime     DateAndTime,
        applOpenChannelWriteRequests    Counter64,
        applOpenChannelWriteRequestsLow Counter32,
        applOpenChannelWriteFailures    Counter32,
        applOpenChannelBytesWritten     Counter64,
        applOpenChannelBytesWrittenLow  Counter32,
        applOpenChannelLastWriteTime    DateAndTime
    }

```

**applElmtOrSvc OBJECT-TYPE**

```

SYNTAX      INTEGER {
                service(1),
                element(2) }

```

**MAX-ACCESS** not-accessible

**STATUS** current

**DESCRIPTION**

*"The applElmtOrSvc attribute serves as an index for tables that can hold information both for individual running application elements as well as for service instances.*

*If the value is service(1), the row contains information gathered at the level of a service.*

*If the value is element(2), the row contains information for an individual running application element."*

```
-- 1.3.6.1.2.1.62.1.2.1.1.1 -- ::= { applOpenChannelEntry 1 }
```

**applElmtOrSvcId OBJECT-TYPE**

```
SYNTAX      Unsigned32 (1..4294967295)
```

**MAX-ACCESS** not-accessible

**STATUS** current

**DESCRIPTION**

*"The applElmtOrSvcId attribute is used as an index in conjunction with the applElmtOrSvc attribute.*

*When the value of applElmtOrSvc is service(1), this attribute's value corresponds to that of applSrvIndex, when the value of applElmtOrSvc is element(2), this attribute's value corresponds to sysAppElmtRunIndex."*

```
-- 1.3.6.1.2.1.62.1.2.1.1.2 -- ::= { applOpenChannelEntry 2 }
```

**applOpenChannelIndex OBJECT-TYPE**

```
SYNTAX      Unsigned32
```

**MAX-ACCESS** not-accessible

**STATUS** current

**DESCRIPTION**

*"This attribute serves to uniquely identify this open connection in the context of the running application element or service instance. Where suitable, the application's native descriptor number should be used."*

```
-- 1.3.6.1.2.1.62.1.2.1.1.3 -- ::= { applOpenChannelEntry 3 }
```

**applOpenChannelOpenTime OBJECT-TYPE**

```
SYNTAX      TimeStamp
```

**MAX-ACCESS** read-only

**STATUS** current

**DESCRIPTION**

*"This attribute records the value of sysUpTime.0 when this channel was opened and this entry was added to this table. This attribute serves as a discontinuity indicator for the counter attributes in this entry and for any corresponding entries in the applOpenConnectionTable, applOpenFileTable, and the applTransactionStreamTable."*

```
-- 1.3.6.1.2.1.62.1.2.1.1.4 -- ::= { applOpenChannelEntry 4 }
```

**applOpenChannelReadRequests OBJECT-TYPE**

**SYNTAX** Counter64  
**UNITS** "read requests"  
**MAX-ACCESS** read-only  
**STATUS** current  
**DESCRIPTION**  
*"This attribute reports the number of read requests for this channel. All read requests for this channel by this entity, regardless of completion status, are included in this count.*  
  
*Read requests are counted in terms of system calls, rather than API calls.*  
  
*Discontinuities in this counter can be detected by monitoring the applOpenChannelOpenTime value for this entry."*  
-- 1.3.6.1.2.1.62.1.2.1.1.5 -- ::= { applOpenChannelEntry 5 }

**applOpenChannelReadRequestsLow OBJECT-TYPE**

**SYNTAX** Counter32  
**UNITS** "read requests"  
**MAX-ACCESS** read-only  
**STATUS** current  
**DESCRIPTION**  
*"This attribute reports the low thirty-two bits of applOpenChannelReadRequests.*  
  
*Discontinuities in this counter can be detected by monitoring the applOpenChannelOpenTime value for this entry."*  
-- 1.3.6.1.2.1.62.1.2.1.1.6 -- ::= { applOpenChannelEntry 6 }

**applOpenChannelReadFailures OBJECT-TYPE**

**SYNTAX** Counter32  
**UNITS** "failed read requests"  
**MAX-ACCESS** read-only  
**STATUS** current  
**DESCRIPTION**  
*"This attribute reports the number of failed read requests.*  
  
*Discontinuities in this counter can be detected by monitoring the applOpenChannelOpenTime value for this entry."*  
-- 1.3.6.1.2.1.62.1.2.1.1.7 -- ::= { applOpenChannelEntry 7 }

**applOpenChannelBytesRead OBJECT-TYPE**

**SYNTAX** Counter64  
**UNITS** "bytes"  
**MAX-ACCESS** read-only  
**STATUS** current  
**DESCRIPTION**  
*"This attribute reports the number of bytes read from this channel. Only bytes successfully read are included in this count.*  
  
*Discontinuities in this counter can be detected by monitoring the applOpenChannelOpenTime value for this entry."*  
-- 1.3.6.1.2.1.62.1.2.1.1.8 -- ::= { applOpenChannelEntry 8 }

**applOpenChannelBytesReadLow OBJECT-TYPE**

**SYNTAX** Counter32  
**UNITS** "bytes"  
**MAX-ACCESS** read-only  
**STATUS** current  
**DESCRIPTION**  
*"This attribute corresponds to the low thirty-two bits of applOpenChannelBytesRead.*

*Discontinuities in this counter can be detected by monitoring the applOpenChannelOpenTime value for this entry."*

-- 1.3.6.1.2.1.62.1.2.1.1.9 -- ::= { applOpenChannelEntry 9 }

**applOpenChannelLastReadTime OBJECT-TYPE**

**SYNTAX** DateAndTime  
**MAX-ACCESS** read-only  
**STATUS** current  
**DESCRIPTION**

*"This attribute reports the time of the most recent read request made by this entity, regardless of completion status, for this open channel.*

*If no read requests have been made the value of this attribute shall be '0000000000000000'H"*

**DEFVAL** { '0000000000000000'H }

-- 1.3.6.1.2.1.62.1.2.1.1.10 -- ::= { applOpenChannelEntry 10 }

**applOpenChannelWriteRequests OBJECT-TYPE**

**SYNTAX** Counter64  
**UNITS** "write requests"  
**MAX-ACCESS** read-only  
**STATUS** current  
**DESCRIPTION**

*"This attribute reports the number of write requests for this channel made by this entity. All write requests for this channel, regardless of completion status, are included in this count.*

*Write requests are counted in terms of system calls, rather than API calls.*

*Discontinuities in this counter can be detected by monitoring the applOpenChannelOpenTime value for this entry."*

-- 1.3.6.1.2.1.62.1.2.1.1.11 -- ::= { applOpenChannelEntry 11 }

**applOpenChannelWriteRequestsLow OBJECT-TYPE**

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

*"This attribute corresponds to the low thirty-two bits of applOpenChannelWriteRequests.*

*Discontinuities in this counter can be detected by monitoring the applOpenChannelOpenTime value for this entry."*

-- 1.3.6.1.2.1.62.1.2.1.1.12 -- ::= { applOpenChannelEntry 12 }

**applOpenChannelWriteFailures OBJECT-TYPE**

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

*"This attribute reports the number of failed write requests.*

*Discontinuities in this counter can be detected by monitoring the applOpenChannelOpenTime value for this entry."*

-- 1.3.6.1.2.1.62.1.2.1.1.13 -- ::= { applOpenChannelEntry 13 }

**applOpenChannelBytesWritten OBJECT-TYPE**

**SYNTAX** Counter64

```

UNITS          "bytes"
MAX-ACCESS    read-only
STATUS        current
DESCRIPTION    "This attribute reports the number of bytes written to
               this channel. Only bytes successfully written (without
               errors reported by the system to the API in use by the
               application) are included in this count.

               Discontinuities in this counter can be detected by
               monitoring the applOpenChannelOpenTime value for this
               entry."
-- 1.3.6.1.2.1.62.1.2.1.1.14 -- ::= { applOpenChannelEntry 14 }

```

**applOpenChannelBytesWrittenLow OBJECT-TYPE**

```

SYNTAX         Counter32
UNITS          "bytes"
MAX-ACCESS    read-only
STATUS        current
DESCRIPTION    "This attribute corresponds to the low thirty-two bits
               of applOpenChannelBytesWritten.

               Discontinuities in this counter can be detected by
               monitoring the applOpenChannelOpenTime value for this
               entry."
-- 1.3.6.1.2.1.62.1.2.1.1.15 -- ::= { applOpenChannelEntry 15 }

```

**applOpenChannelLastWriteTime OBJECT-TYPE**

```

SYNTAX         DateAndTime
MAX-ACCESS    read-only
STATUS        current
DESCRIPTION    "This attribute reports the time of the most recent write
               request made by this running application element or
               service instance, regardless of completion status, for
               this open channel.
               If no write requests have been made, the value
               of this attribute shall be '0000000000000000'H"
DEFVAL        { '0000000000000000'H }

```

```

-- 1.3.6.1.2.1.62.1.2.1.1.16 -- ::= { applOpenChannelEntry 16 }

```

```

-- *****
--
--      applOpenFileTable - Table of Open Files
--
-- *****

```

**applOpenFileTable OBJECT-TYPE**

```

SYNTAX         SEQUENCE OF ApplOpenFileEntry
MAX-ACCESS    not-accessible
STATUS        current
DESCRIPTION    "The applOpenFileTable reports information on open files
               for service instances or application elements. This
               table is indexed by applElmtOrSvc and applElmtOrSvcId,
               effectively grouping all entries for a given running
               service instance or application element together, and
               by applOpenChannelIndex, uniquely identifying an open
               channel (and, consequently, a file) within the context
               of a particular service instance or application element.

               Elements in this table correspond to elements in the
               applOpenChannelTable that represent files. For rows in
               the applOpenChannelTable that do not represent files,
               corresponding rows in this table will not exist."

```

```

-- 1.3.6.1.2.1.62.1.2.2 -- ::= { applChannelGroup 2 }

```

**applOpenFileEntry OBJECT-TYPE**

```

SYNTAX         ApplOpenFileEntry

```

```

MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
    "An applOpenFileEntry indicates that a file has been
    opened by this running application element and is
    still open. Note that if a file has been opened
    multiple times, even by the same process, it will have
    multiple entries."
INDEX {
    applElmtOrSvc,
    applElmtOrSvcId,
    applOpenChannelIndex
}
-- 1.3.6.1.2.1.62.1.2.2.1 -- ::= { applOpenFileTable 1 }

```

```

ApplOpenFileEntry ::= SEQUENCE {
    applOpenFileName LongUtf8String,
    applOpenFileSizeHigh Unsigned32,
    applOpenFileSizeLow Unsigned32,
    applOpenFileMode INTEGER
}

```

```

applOpenFileName OBJECT-TYPE
SYNTAX LongUtf8String
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "This attribute reports the name of this open file.
    Wherever practical, a fully qualified path name should
    be reported.

    The values 'stdin', 'stdout', and 'stderr' are reserved
    in accordance with common usage when the fully qualified
    path name cannot be determined."
-- 1.3.6.1.2.1.62.1.2.2.1.1 -- ::= { applOpenFileEntry 1 }

```

```

applOpenFileSizeHigh OBJECT-TYPE
SYNTAX Unsigned32
UNITS "2^32 byte blocks"
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "This file's current size in 2^32 byte blocks.

    For example, for a file with a total size of 4,294,967,296
    bytes, this attribute would have a value of 1; for a file
    with a total size of 4,294,967,295 bytes this attribute's
    value would be 0."
-- 1.3.6.1.2.1.62.1.2.2.1.2 -- ::= { applOpenFileEntry 2 }

```

```

applOpenFileSizeLow OBJECT-TYPE
SYNTAX Unsigned32
UNITS "bytes"
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "This file's current size modulo 2^32 bytes.

    For example, for a file with a total size of
    4,294,967,296 bytes this attribute would have a value
    of 0; for a file with a total size of 4,294,967,295
    bytes this attribute's value would be 4,294,967,295."
-- 1.3.6.1.2.1.62.1.2.2.1.3 -- ::= { applOpenFileEntry 3 }

```

```

applOpenFileMode OBJECT-TYPE
SYNTAX INTEGER {
    read(1),
    write(2),
}

```

```

        readWrite(3) }
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "This attribute reports the current mode of this file from
    the perspective of this running application element.

    These values have the following meanings:

        read(1) - file opened for reading only
        write(2) - file opened for writing only
        readWrite(3) - file opened for read and write.

    These values correspond to the POSIX/ANSI C library
    function fopen() 'type' parameter, using the following
    mappings:

        r -> read(1)
        w -> write(2)
        a -> write(2)
        + -> readWrite(3)
    "

```

```

-- 1.3.6.1.2.1.62.1.2.2.1.4 -- ::= { applOpenFileEntry 4 }
-- *****
--
--     applOpenConnectionTable - Open Connection Table
--
-- *****

```

**applOpenConnectionTable OBJECT-TYPE**

```

SYNTAX SEQUENCE OF ApplOpenConnectionEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION

```

"The *applOpenConnectionTable* provides information about open and listening connections from the perspective of a running application element or service instance. Entries in this table are indexed by *applElmtOrSvc*, *applElmtOrSvcID*, and by *applOpenChannelIndex*, which serves to uniquely identify each connection in the context of a service instance or running application element.

For each row in this table, a corresponding row will exist in the *applOpenChannel* table. For rows in the *applOpenChannelTable* which do not represent open or listening connections, no corresponding rows will exist in this table."

```

-- 1.3.6.1.2.1.62.1.2.3 -- ::= { applChannelGroup 3 }

```

**applOpenConnectionEntry OBJECT-TYPE**

```

SYNTAX ApplOpenConnectionEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION

```

"An *applOpenConnectionEntry* indicates that a running application element or service instance has an open connection. The entry has information describing that connection.

In the case of a TCP transport, the element *applOpenConnectionNearEndAddr* and that row's *applOpenConnectionFarEndAddr* would correspond to a *tcpConnEntry*. For a UDP transport, a similar relationship exists with respect to a *udpEntry*."

```

INDEX {
    applElmtOrSvc,
    applElmtOrSvcId,

```

```

        applOpenChannelIndex
    }
-- 1.3.6.1.2.1.62.1.2.3.1 -- ::= { applOpenConnectionTable 1 }

ApplOpenConnectionEntry ::= SEQUENCE {
    applOpenConnectionTransport      TDomain,
    applOpenConnectionNearEndAddr    ApplTAddress,
    applOpenConnectionNearEndpoint   SnmpAdminString,
    applOpenConnectionFarEndAddr     ApplTAddress,
    applOpenConnectionFarEndpoint    SnmpAdminString,
    applOpenConnectionApplication    SnmpAdminString
}

applOpenConnectionTransport OBJECT-TYPE
    SYNTAX      TDomain
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The applOpenConnectionTransport attribute identifies the
        transport protocol in use for this connection.  If it is
        not practical to determine the underlying transport, this
        attribute's value shall have a value of {0 0}."
    DEFVAL      { zeroDotZero }
-- 1.3.6.1.2.1.62.1.2.3.1.1 -- ::= { applOpenConnectionEntry 1 }

applOpenConnectionNearEndAddr OBJECT-TYPE
    SYNTAX      ApplTAddress
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The applOpenConnectionNearEndAddr attribute reports the
        transport address and port information for the near end
        of this connection.

        If the value is not known, the value has a length
        of zero."
    DEFVAL      { "" }
-- 1.3.6.1.2.1.62.1.2.3.1.2 -- ::= { applOpenConnectionEntry 2 }

applOpenConnectionNearEndpoint OBJECT-TYPE
    SYNTAX      SnmpAdminString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The applOpenConnectionNearEndpoint attribute reports the
        fully-qualified domain name and port information for the
        near end of this connection.

        The format of this attribute for TCP and UDP-based
        protocols is the fully-qualified domain name immediately
        followed by a colon which is immediately followed by
        the decimal representation of the port number.

        If the value is not known, the value has a length
        of zero."
    DEFVAL      { "" }
-- 1.3.6.1.2.1.62.1.2.3.1.3 -- ::= { applOpenConnectionEntry 3 }

applOpenConnectionFarEndAddr OBJECT-TYPE
    SYNTAX      ApplTAddress
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The applOpenConnectionFarEndAddr attribute reports the
        transport address and port information for the far end
        of this connection.

        If not known, as in the case of a connectionless

```

```

        transport, the value of this attribute shall be a
        zero-length string."
    DEFVAL        { "" }
-- 1.3.6.1.2.1.62.1.2.3.1.4 -- ::= { applOpenConnectionEntry 4 }

applOpenConnectionFarEndpoint OBJECT-TYPE
    SYNTAX        SnmpAdminString
    MAX-ACCESS    read-only
    STATUS        current
    DESCRIPTION   "The applOpenConnectionFarEndpoint attribute reports
                  the fully-qualified domain name and port information
                  for the far end of this connection.

                  The format of this attribute for TCP and UDP-based
                  protocols is the fully-qualified domain name immediately
                  followed by a colon which is immediately followed by
                  the decimal representation of the port number.

                  If not known, as in the case of a connectionless
                  transport, the value of this attribute shall be a
                  zero-length string."
    DEFVAL        { "" }
-- 1.3.6.1.2.1.62.1.2.3.1.5 -- ::= { applOpenConnectionEntry 5 }

applOpenConnectionApplication OBJECT-TYPE
    SYNTAX        SnmpAdminString
    MAX-ACCESS    read-only
    STATUS        current
    DESCRIPTION   "The applOpenConnectionApplication attribute identifies
                  the application layer protocol in use.  If not known,
                  the value of this attribute shall be a zero-length
                  string.

                  When possible, protocol names should be those used in
                  the 'ASSIGNED NUMBERS' [13].  For example, an SMTP mail
                  server would use 'SMTP'."
    DEFVAL        { "" }
-- 1.3.6.1.2.1.62.1.2.3.1.6 -- ::= { applOpenConnectionEntry 6 }
-- *****
--
--     applTransactionStreamTable - common
--     information for transaction stream monitoring
--
-- *****

applTransactionStreamTable OBJECT-TYPE
    SYNTAX        SEQUENCE OF ApplTransactionStreamEntry
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION   "The applTransactionStreamTable contains common
                  information for transaction statistic accumulation."
-- 1.3.6.1.2.1.62.1.2.4 -- ::= { applChannelGroup 4 }

applTransactionStreamEntry OBJECT-TYPE
    SYNTAX        ApplTransactionStreamEntry
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION   "An applTransactionStreamEntry contains information for
                  a single transaction stream.  A transaction stream
                  can be a network connection, file, or other source
                  of transactions."
    INDEX        {
        applElmtOrSvc,
        applElmtOrSvcId,
        applOpenChannelIndex
    }

```

```

    }
-- 1.3.6.1.2.1.62.1.2.4.1 -- ::= { applTransactionStreamTable 1 }

ApplTransactionStreamEntry ::= SEQUENCE {
    applTransactStreamDescr      SnmpAdminString,
    applTransactStreamUnitOfWork SnmpAdminString,
    applTransactStreamInvokes    Counter64,
    applTransactStreamInvokesLow Counter32,
    applTransactStreamInvCumTimes Counter32,
    applTransactStreamInvRspTimes Counter32,
    applTransactStreamPerforms   Counter64,
    applTransactStreamPerformsLow Counter32,
    applTransactStreamPrfCumTimes Counter32,
    applTransactStreamPrfRspTimes Counter32
}

applTransactStreamDescr OBJECT-TYPE
    SYNTAX      SnmpAdminString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The applTransactStreamDescr attribute provides a
        human-readable description of this transaction stream.
        If no descriptive information is available, this
        attribute's value shall be a zero-length string."
    DEFVAL      { "" }
-- 1.3.6.1.2.1.62.1.2.4.1.1 -- ::= { applTransactionStreamEntry 1 }

applTransactStreamUnitOfWork OBJECT-TYPE
    SYNTAX      SnmpAdminString
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The applTransactStreamUnitOfWork attribute provides a
        human-readable definition of what the unit of work is
        for this transaction stream.

        If no descriptive information is available, this
        attribute's value shall be a zero-length string."
    DEFVAL      { "" }
-- 1.3.6.1.2.1.62.1.2.4.1.2 -- ::= { applTransactionStreamEntry 2 }

applTransactStreamInvokes OBJECT-TYPE
    SYNTAX      Counter64
    UNITS       "transactions"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Cumulative count of requests / invocations issued.

        Discontinuities in this counter can be detected
        by monitoring the corresponding instance of
        applOpenChannelOpenTime."
-- 1.3.6.1.2.1.62.1.2.4.1.3 -- ::= { applTransactionStreamEntry 3 }

applTransactStreamInvokesLow OBJECT-TYPE
    SYNTAX      Counter32
    UNITS       "transactions"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "This counter corresponds to the low thirty-two
        bits of applTransactStreamInvokes.

        Discontinuities in this counter can be detected
        by monitoring the corresponding instance of
        applOpenChannelOpenTime."
-- 1.3.6.1.2.1.62.1.2.4.1.4 -- ::= { applTransactionStreamEntry 4 }

```

**applTransactStreamInvCumTimes OBJECT-TYPE**

**SYNTAX** Counter32  
**UNITS** "milliseconds"  
**MAX-ACCESS** read-only  
**STATUS** current

**DESCRIPTION**

*"The applTransactStreamInvCumTimes attribute reports the cumulative sum of the lengths of the intervals measured between the transmission of requests and the receipt of (the first of) the corresponding response(s).*

*Discontinuities in this counter can be detected by monitoring the corresponding instance of applOpenChannelOpenTime."*

-- 1.3.6.1.2.1.62.1.2.4.1.5 -- ::= { applTransactionStreamEntry 5 }

**applTransactStreamInvRspTimes OBJECT-TYPE**

**SYNTAX** Counter32  
**UNITS** "milliseconds"  
**MAX-ACCESS** read-only  
**STATUS** current

**DESCRIPTION**

*"The applTransactStreamInvRspTimes attribute reports the cumulative sum of the lengths of the intervals measured between the receipt of the first and last of multiple responses to a request.*

*For transaction streams which do not permit multiple responses to a single request, this attribute will be constant.*

*Discontinuities in this counter can be detected by monitoring the corresponding instance of applOpenChannelOpenTime."*

-- 1.3.6.1.2.1.62.1.2.4.1.6 -- ::= { applTransactionStreamEntry 6 }

**applTransactStreamPerforms OBJECT-TYPE**

**SYNTAX** Counter64  
**UNITS** "transactions"  
**MAX-ACCESS** read-only  
**STATUS** current

**DESCRIPTION**

*"Cumulative count of transactions performed.*

*Discontinuities in this counter can be detected by monitoring the corresponding instance of applOpenChannelOpenTime."*

-- 1.3.6.1.2.1.62.1.2.4.1.7 -- ::= { applTransactionStreamEntry 7 }

**applTransactStreamPerformsLow OBJECT-TYPE**

**SYNTAX** Counter32  
**UNITS** "transactions"  
**MAX-ACCESS** read-only  
**STATUS** current

**DESCRIPTION**

*"This counter reports the low thirty-two bits of applTransactStreamPerforms.*

*Discontinuities in this counter can be detected by monitoring the corresponding instance of applOpenChannelOpenTime."*

-- 1.3.6.1.2.1.62.1.2.4.1.8 -- ::= { applTransactionStreamEntry 8 }

**applTransactStreamPrfCumTimes OBJECT-TYPE**

**SYNTAX** Counter32  
**UNITS** "milliseconds"  
**MAX-ACCESS** read-only  
**STATUS** current

**DESCRIPTION**

"The *applTransactStreamPrfCumTimes* attribute reports the cumulative sum of the interval lengths measured between receipt of requests and the transmission of the corresponding responses.

Discontinuities in this counter can be detected by monitoring the corresponding instance of *applOpenChannelOpenTime*."

```
-- 1.3.6.1.2.1.62.1.2.4.1.9 -- ::= { applTransactionStreamEntry 9 }
```

**applTransactStreamPrfRspTimes OBJECT-TYPE**

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

"For each transaction performed, the elapsed time between when the first response is enqueued and when the last response is enqueued is added to this cumulative sum.

For single-response protocols, the value of *applTransactStreamPrfRspTimes* will be constant.

Discontinuities in this counter can be detected by monitoring the corresponding instance of *applOpenChannelOpenTime*."

```
-- 1.3.6.1.2.1.62.1.2.4.1.10 -- ::= { applTransactionStreamEntry 10 }
```

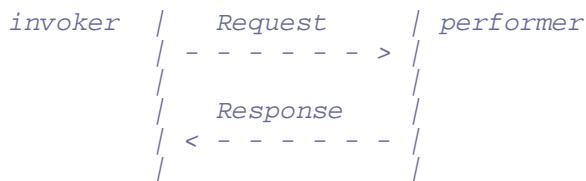
```
-- *****  
--  
-- applTransactFlowTable  
--  
-- *****
```

**applTransactFlowTable OBJECT-TYPE**

**SYNTAX** SEQUENCE OF ApplTransactFlowEntry  
**MAX-ACCESS** not-accessible  
**STATUS** current  
**DESCRIPTION**

"The *applTransactFlowTable* contains entries, organized by application instance or running application element, direction of flow, and type (request/response) for each open transaction stream.

The simple model of a transaction used here looks like this:



Since in some protocols it is possible for an entity to take on both the invoker and performer roles, information here is accumulated for transmitted and received requests, as well as for transmitted and received responses. Counts are maintained for both transactions and bytes transferred."

```
-- 1.3.6.1.2.1.62.1.2.5 -- ::= { applChannelGroup 5 }
```

**applTransactFlowEntry OBJECT-TYPE**

**SYNTAX** ApplTransactFlowEntry  
**MAX-ACCESS** not-accessible  
**STATUS** current  
**DESCRIPTION**

"An *applTransactFlowEntry* reports transaction throughput information for requests or response in a particular

direction (transmit / receive) for a transaction stream.

Entries in this table correspond to those in the `applTransactionStreamTable` with identical values for the `applElmtOrSvc`, `applElmtOrSvcId`, and `applOpenChannelIndex`.

For all counter objects in one of these entries, the corresponding (same value for `applElmtOrSvc`, `applElmtOrSvcId`, and `applOpenChannelIndex`) `applOpenChannelOpenTime` object serves as a discontinuity indicator."

```
INDEX {
  applElmtOrSvc,
  applElmtOrSvcId,
  applOpenChannelIndex,
  applTransactFlowDirection,
  applTransactFlowReqRsp
}
-- 1.3.6.1.2.1.62.1.2.5.1 -- ::= { applTransactFlowTable 1 }
```

```
ApplTransactFlowEntry ::= SEQUENCE {
  applTransactFlowDirection INTEGER,
  applTransactFlowReqRsp   INTEGER,
  applTransactFlowTrans    Counter64,
  applTransactFlowTransLow Counter32,
  applTransactFlowBytes    Counter64,
  applTransactFlowBytesLow Counter32,
  applTransactFlowTime     DateAndTime
}
```

**applTransactFlowDirection OBJECT-TYPE**

```
SYNTAX      INTEGER {
              transmit(1),
              receive(2) }
```

```
MAX-ACCESS not-accessible
```

```
STATUS      current
```

**DESCRIPTION**

"The `applTransactFlowDirection` index serves to identify an entry as containing information pertaining to the transmit (1) or receive (2) flow of a transaction stream."

```
-- 1.3.6.1.2.1.62.1.2.5.1.1 -- ::= { applTransactFlowEntry 1 }
```

**applTransactFlowReqRsp OBJECT-TYPE**

```
SYNTAX      INTEGER {
              request(1),
              response(2) }
```

```
MAX-ACCESS not-accessible
```

```
STATUS      current
```

**DESCRIPTION**

"The value of the `applTransactFlowReqRsp` index indicates whether this entry contains information on requests (1), or responses (2)."

```
-- 1.3.6.1.2.1.62.1.2.5.1.2 -- ::= { applTransactFlowEntry 2 }
```

**applTransactFlowTrans OBJECT-TYPE**

```
SYNTAX      Counter64
```

```
UNITS       "transactions"
```

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

```
STATUS      current
```

**DESCRIPTION**

"The `applTransactFlowTrans` attribute reports the number of request/response transactions (as indicated by the `applTransactFlowReqRsp` index) received/generated (as indicated by the `applTransactFlowDirection` index) that this service instance or running application element has processed for this transaction stream."

*Discontinuities in this counter can be detected by monitoring the corresponding instance of applOpenChannelOpenTime."*

-- 1.3.6.1.2.1.62.1.2.5.1.3 -- ::= { applTransactFlowEntry 3 }

**applTransactFlowTransLow OBJECT-TYPE**

**SYNTAX** Counter32

**UNITS** "transactions"

**MAX-ACCESS** read-only

**STATUS** current

**DESCRIPTION**

*"This attribute corresponds to the low thirty-two bits of applTransactFlowTrans."*

*Discontinuities in this counter can be detected by monitoring the corresponding instance of applOpenChannelOpenTime."*

-- 1.3.6.1.2.1.62.1.2.5.1.4 -- ::= { applTransactFlowEntry 4 }

**applTransactFlowBytes OBJECT-TYPE**

**SYNTAX** Counter64

**UNITS** "bytes"

**MAX-ACCESS** read-only

**STATUS** current

**DESCRIPTION**

*"The applTransactFlowBytes attribute reports the number of request/response (as indicated by the applTransactFlowReqRsp index) bytes received/generated (as indicated by the applTransactFlowDirection index) handled by this application element or service instance on this transaction stream."*

*All application layer bytes are included in this count, including any application layer wrappers, headers, or other overhead."*

*Discontinuities in this counter can be detected by monitoring the corresponding instance of applOpenChannelOpenTime."*

-- 1.3.6.1.2.1.62.1.2.5.1.5 -- ::= { applTransactFlowEntry 5 }

**applTransactFlowBytesLow OBJECT-TYPE**

**SYNTAX** Counter32

**UNITS** "bytes"

**MAX-ACCESS** read-only

**STATUS** current

**DESCRIPTION**

*"This attribute corresponds to the low thirty-two bits of applTransactFlowBytes."*

*Discontinuities in this counter can be detected by monitoring the corresponding instance of applOpenChannelOpenTime."*

-- 1.3.6.1.2.1.62.1.2.5.1.6 -- ::= { applTransactFlowEntry 6 }

**applTransactFlowTime OBJECT-TYPE**

**SYNTAX** DateAndTime

**MAX-ACCESS** read-only

**STATUS** current

**DESCRIPTION**

*"The applTransactFlowTime attribute records the time of the processing (receipt or transmission as indicated by the applTransactFlowDirection index) by this running application element or service instance of the most recent request/response (as indicated by the applTransactFlowReqRsp index) on this transaction stream."*

*If no requests/responses been received/transmitted by*

```

        this entity over this transaction stream, the value
        of this attribute shall be '0000000000000000'H"
    DEFVAL      { '0000000000000000'H }
-- 1.3.6.1.2.1.62.1.2.5.1.7 -- ::= { applTransactFlowEntry 7 }
-- *****
--
--     applTransactKindTable - transaction statistics broken down
--     according to the kinds of transactions in each direction
--     for a transaction stream.
--
-- *****

applTransactKindTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF ApplTransactKindEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The applTransactKindTable provides transaction statistics
        broken down by kinds of transaction. The definition of
        the kinds of transactions is specific to the application
        protocol in use, and may be documented in the form of an
        applicability statement."
-- 1.3.6.1.2.1.62.1.2.6 -- ::= { applChannelGroup 6 }

```

```

applTransactKindEntry OBJECT-TYPE
    SYNTAX      ApplTransactKindEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "An applTransactKindEntry reports information for a
        specific service instance or running application
        element's use of a specific transaction stream in
        a particular direction in requests or responses
        (as indicated by the applTransactFlowReqRsp index)
        broken down by transaction kind, as indicated by the
        applTransactKind index.

        Discontinuities in any of the counters in an entry can
        be detected by monitoring the corresponding instance of
        applOpenChannelOpenTime."
    INDEX {
        applElmtOrSvc,
        applElmtOrSvcId,
        applOpenChannelIndex,
        applTransactFlowDirection,
        applTransactFlowReqRsp,
        applTransactKind
    }
-- 1.3.6.1.2.1.62.1.2.6.1 -- ::= { applTransactKindTable 1 }

```

```

ApplTransactKindEntry ::= SEQUENCE {
    applTransactKind      SnmpAdminString,
    applTransactKindTrans Counter64,
    applTransactKindTransLow Counter32,
    applTransactKindBytes Counter64,
    applTransactKindBytesLow Counter32,
    applTransactKindTime  DateAndTime
}

```

```

applTransactKind OBJECT-TYPE
    SYNTAX      SnmpAdminString (SIZE (1..32))
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The applTransactKind index is the human-readable
        identifier for a particular transaction kind within
        the context of an application protocol. The values
        to be used for a particular protocol may be identified

```

```

        in an applicability statement."
-- 1.3.6.1.2.1.62.1.2.6.1.1 -- ::= { applTransactKindEntry 1 }

applTransactKindTrans OBJECT-TYPE
    SYNTAX      Counter64
    UNITS       "transactions"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The applTransactKindTrans attribute reports the number
        of request/response (as indicated by the
        applTransactFlowReqRsp index) transactions
        received/generated (as indicated by the
        applTransactFlowDirection index) handled by this
        application instance or application element on this
        transaction stream for this transaction kind.

        Discontinuities in this counter can be detected
        by monitoring the corresponding instance of
        applOpenChannelOpenTime."
-- 1.3.6.1.2.1.62.1.2.6.1.2 -- ::= { applTransactKindEntry 2 }

applTransactKindTransLow OBJECT-TYPE
    SYNTAX      Counter32
    UNITS       "transactions"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The applTransactKindTransLow attribute reports
        the low thirty-two bits of applTransactKindTrans.

        Discontinuities in this counter can be detected
        by monitoring the corresponding instance of
        applOpenChannelOpenTime."
-- 1.3.6.1.2.1.62.1.2.6.1.3 -- ::= { applTransactKindEntry 3 }

applTransactKindBytes OBJECT-TYPE
    SYNTAX      Counter64
    UNITS       "bytes"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The applTransactKindBytes attribute reports the number
        of request/response (as indicated by the
        applTransactFlowReqRsp index) bytes received/generated
        (as indicated by the applTransactFlowDirection index)
        handled by this application element on this transaction
        stream for this transaction kind.

        All application layer bytes are included in this count,
        including any application layer wrappers, headers, or
        other overhead.

        Discontinuities in this counter can be detected
        by monitoring the corresponding instance of
        applOpenChannelOpenTime."
-- 1.3.6.1.2.1.62.1.2.6.1.4 -- ::= { applTransactKindEntry 4 }

applTransactKindBytesLow OBJECT-TYPE
    SYNTAX      Counter32
    UNITS       "bytes"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The applTransactKindBytesLow attribute corresponds
        to the low thirty-two bits of applTransactKindBytes.

        Discontinuities in this counter can be detected
        by monitoring the corresponding instance of

```

```

        applOpenChannelOpenTime."
-- 1.3.6.1.2.1.62.1.2.6.1.5 -- ::= { applTransactKindEntry 5 }

applTransactKindTime OBJECT-TYPE
    SYNTAX      DateAndTime
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The applTransactKindTime attribute records the time of
        the processing (receipt or transmission as indicated
        by the applTransactFlowDirection index) by this
        running application element or service instance of
        the most recent request/response (as indicated by
        the applTransactFlowReqRsp index) of this kind of
        transaction on this transaction stream.

        If no requests/responses of this kind been
        received/transmitted by this running application element
        or service instance over this transaction stream, the
        value of this attribute shall be '0000000000000000'H"
    DEFVAL      { '0000000000000000'H }
-- 1.3.6.1.2.1.62.1.2.6.1.6 -- ::= { applTransactKindEntry 6 }
-- *****
--
--     applPastChannelGroup - logged information on former channels.
--     These tables control the collection of channel history
--     information and represent the accumulated historical data.
--
-- *****

applPastChannelControlTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF ApplPastChannelControlEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The applPastChannelControlTable controls the
        accumulation of history information about channels
        from the perspective of service instances and running
        application elements. Entries in this table are indexed
        by applElmtOrSvc and applElmtOrSvcId, giving control
        of channel history accumulation at the level of each
        service instance and running application element."
-- 1.3.6.1.2.1.62.1.3.1 -- ::= { applPastChannelGroup 1 }

applPastChannelControlEntry OBJECT-TYPE
    SYNTAX      ApplPastChannelControlEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "An applPastChannelControlEntry provides the ability
        to control the retention of channel history information
        by service instances and running application elements."
    INDEX {
        applElmtOrSvc,
        applElmtOrSvcId
    }
-- 1.3.6.1.2.1.62.1.3.1.1 -- ::= { applPastChannelControlTable 1 }

ApplPastChannelControlEntry ::= SEQUENCE {
    applPastChannelControlCollect    INTEGER,
    applPastChannelControlMaxRows    Unsigned32,
    applPastChannelControlTimeLimit  Unsigned32,
    applPastChannelControlRemItems   Counter32
}

applPastChannelControlCollect OBJECT-TYPE
    SYNTAX      INTEGER {
        enabled(1),

```

```

        frozen(2),
        disabled(3) }
MAX-ACCESS read-write
STATUS current
DESCRIPTION
    "When the value of applPastChannelControlCollect is
    'enabled', each time the corresponding running
    application element or service instance closes
    an open channel a new entry will be added to the
    applPastChannelTable.

    When the value of applPastChannelControlCollect
    is 'frozen', no new entries are added to the
    applPastChannelTable for this running application
    element or service instance, and old entries are not
    aged out.

    When the value of applPastChannelControlCollect
    is 'disabled', all entries are removed from
    applPastChannelTable for this running application or
    service instance, and no new entries are added."
DEFVAL { enabled }
-- 1.3.6.1.2.1.62.1.3.1.1.1 -- ::= { applPastChannelControlEntry 1 }

```

**applPastChannelControlMaxRows OBJECT-TYPE**

```

SYNTAX Unsigned32
UNITS "channel history entries"
MAX-ACCESS read-write
STATUS current
DESCRIPTION
    "The maximum number of entries allowed in the
    applPastChannelTable for this running application element
    or service instance. Once the number of rows for this
    running application element or service instance in the
    applPastChannelTable reaches this value, when new
    entries are to be added the management subsystem will
    make room for them by removing the oldest entries.
    Entries will be removed on the basis of oldest
    applPastChannelCloseTime value first."
DEFVAL { 500 }
-- 1.3.6.1.2.1.62.1.3.1.1.2 -- ::= { applPastChannelControlEntry 2 }

```

**applPastChannelControlTimeLimit OBJECT-TYPE**

```

SYNTAX Unsigned32
UNITS "seconds"
MAX-ACCESS read-write
STATUS current
DESCRIPTION
    "The maximum time in seconds which an entry for this
    running application element or service instance
    may exist in the applPastChannelTable before it
    is removed. Any entry that is older than this value
    will be removed (aged out) from the table, unless the
    applPastChannelControlCollect is set to 'frozen'.

    Note that an entry may be aged out prior to reaching
    this time limit if it is the oldest entry in the table
    and must be removed to make space for a new entry so
    as to not exceed applPastChannelControlMaxRows, or if the
    applPastChannelControlCollect is set to 'disabled'."
DEFVAL { 7200 }
-- 1.3.6.1.2.1.62.1.3.1.1.3 -- ::= { applPastChannelControlEntry 3 }

```

**applPastChannelControlRemItems OBJECT-TYPE**

```

SYNTAX Counter32
UNITS "channel history entries"
MAX-ACCESS read-only
STATUS current
DESCRIPTION

```

"The `applPastChannelControlRemItems` attribute reports the number of `applPastChannelControlTable` entries for this running application element or service instance that were deleted in order to make room for new history entries.

This count does NOT include entries deleted for the following reasons:

- the corresponding `applPastChannelControlCollect` attribute has been set to 'disabled'
- the entry has been in the table longer than the time limit indicated by the corresponding `applPastChannelControlTimeLimit`.

"

```
-- 1.3.6.1.2.1.62.1.3.1.1.4 -- ::= { applPastChannelControlEntry 4 }  
-- *****  
--  
-- applPastChannelTable - Table of former channels  
--  
-- *****
```

**applPastChannelTable OBJECT-TYPE**

**SYNTAX** SEQUENCE OF ApplPastChannelEntry

**MAX-ACCESS** not-accessible

**STATUS** current

**DESCRIPTION**

"The `applPastChannelTable` provides history information about channels from the perspective of running application elements and service instances. Entries in this table are indexed by `applElmtOrSvc`, `applElmtOrSvcId`, and by `applPastChannelIndex`, which serves to uniquely identify each former channel in the context of a running application element or service instance.

Note that the value of `applPastChannelIndex` is independent of the value `applOpenChannelIndex` had when this channel was open.

Entries for closed channels for a given running application element or service instance can be added to this table only if its entry in the `applPastChannelControlTable` has the value 'enabled' for the attribute `applPastChannelControlCollect`.

Entries for closed channels are removed under the following circumstances:

- the running application element or service instance no longer exists
- the corresponding `applPastChannelControlCollect` attribute has been set to 'disabled'
- the entry has been in the table longer than the time limit indicated by the corresponding `applPastChannelControlTimeLimit` and the value of `applPastChannelControlCollect` is not 'frozen'
- this is the oldest entry for the running application element or service instance in question and the addition of a new element would otherwise cause `applPastChannelControlMaxRows` to be exceeded for this running application element or service instance.
- a value of `applPastChannelIndex` has been re-used. Note that under normal circumstances, this is

unlikely.

Removal/replacement of an entry under the last two conditions causes the corresponding *applPastChannelControlRemItems* to be incremented."

```
-- 1.3.6.1.2.1.62.1.3.2 -- ::= { applPastChannelGroup 2 }
```

**applPastChannelEntry OBJECT-TYPE**

**SYNTAX** ApplPastChannelEntry

**MAX-ACCESS** not-accessible

**STATUS** current

**DESCRIPTION**

"An *applPastChannelEntry* indicates that a running application element or service instance once had an open channel, which is now closed. The entry has information describing that channel."

**INDEX** {

applElmtOrSvc,  
applElmtOrSvcId,  
applPastChannelIndex

}

```
-- 1.3.6.1.2.1.62.1.3.2.1 -- ::= { applPastChannelTable 1 }
```

**ApplPastChannelEntry ::= SEQUENCE {**

applPastChannelIndex Unsigned32,  
applPastChannelOpenTime DateAndTime,  
applPastChannelCloseTime DateAndTime,  
applPastChannelReadRequests Unsigned64TC,  
applPastChannelReadReqsLow Unsigned32,  
applPastChannelReadFailures Unsigned32,  
applPastChannelBytesRead Unsigned64TC,  
applPastChannelBytesReadLow Unsigned32,  
applPastChannelLastReadTime DateAndTime,  
applPastChannelWriteRequests Unsigned64TC,  
applPastChannelWriteReqsLow Unsigned32,  
applPastChannelWriteFailures Unsigned32,  
applPastChannelBytesWritten Unsigned64TC,  
applPastChannelBytesWritLow Unsigned32,  
applPastChannelLastWriteTime DateAndTime

}

**applPastChannelIndex OBJECT-TYPE**

**SYNTAX** Unsigned32 (1..4294967295)

**MAX-ACCESS** not-accessible

**STATUS** current

**DESCRIPTION**

"This attribute serves to uniquely identify this closed channel in the context of the running application element or service instance. This attribute has no other semantics.

Note that the value of *applPastChannelIndex* is independent of the value *applOpenChannelIndex* had when this channel was active.

In issuing this index value, the implementation must avoid re-issuing an index value which has already been assigned to an entry which has not yet been deleted due to age or space considerations.

The value zero is excluded from the set of permitted values for this index in order to permit other tables to possibly represent information that cannot be associated with a specific entry in this table."

```
-- 1.3.6.1.2.1.62.1.3.2.1.1 -- ::= { applPastChannelEntry 1 }
```

**applPastChannelOpenTime OBJECT-TYPE**

**SYNTAX** DateAndTime

```

MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "This attribute records the time when this channel was
    originally opened. Note that this information is quite
    different from applOpenChannelOpenTime, which is used
    for the detection of counter discontinuities."
-- 1.3.6.1.2.1.62.1.3.2.1.2 -- ::= { applPastChannelEntry 2 }

applPastChannelCloseTime OBJECT-TYPE
    SYNTAX DateAndTime
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "This attribute records the time when this channel
        was closed."
-- 1.3.6.1.2.1.62.1.3.2.1.3 -- ::= { applPastChannelEntry 3 }

applPastChannelReadRequests OBJECT-TYPE
    SYNTAX Unsigned64TC
    UNITS "read requests"
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "This attribute records the number of read requests for
        this channel made by this running application element or
        service instance. All read requests for this channel by
        this running application element or service instance,
        regardless of completion status, are included in this
        count. Read requests are counted in terms of system
        calls, rather than API calls."
-- 1.3.6.1.2.1.62.1.3.2.1.4 -- ::= { applPastChannelEntry 4 }

applPastChannelReadReqsLow OBJECT-TYPE
    SYNTAX Unsigned32
    UNITS "read requests"
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "This attribute corresponds to the low thirty-two bits
        of applPastChannelReadRequests."
-- 1.3.6.1.2.1.62.1.3.2.1.5 -- ::= { applPastChannelEntry 5 }

applPastChannelReadFailures OBJECT-TYPE
    SYNTAX Unsigned32
    UNITS "failed read requests"
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "This attribute reports the number of failed read
        requests."
-- 1.3.6.1.2.1.62.1.3.2.1.6 -- ::= { applPastChannelEntry 6 }

applPastChannelBytesRead OBJECT-TYPE
    SYNTAX Unsigned64TC
    UNITS "bytes"
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "This attribute reports the number of bytes read from this
        channel by this running application element or service
        instance. Only bytes successfully read are included in
        this count."
-- 1.3.6.1.2.1.62.1.3.2.1.7 -- ::= { applPastChannelEntry 7 }

applPastChannelBytesReadLow OBJECT-TYPE
    SYNTAX Unsigned32
    UNITS "bytes"
    MAX-ACCESS read-only

```

```

STATUS      current
DESCRIPTION
    "This attribute corresponds to the low thirty-two bits
    of applPastChannelBytesRead."
-- 1.3.6.1.2.1.62.1.3.2.1.8 -- ::= { applPastChannelEntry 8 }

applPastChannelLastReadTime OBJECT-TYPE
SYNTAX      DateAndTime
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "This attribute reports the time of the most recent read
    request made by this running application element or
    service instance regardless of completion status, for
    this former channel.

    If no read requests have been made , the value of this
    attribute shall be '0000000000000000'H"
DEFVAL      { '0000000000000000'H }
-- 1.3.6.1.2.1.62.1.3.2.1.9 -- ::= { applPastChannelEntry 9 }

applPastChannelWriteRequests OBJECT-TYPE
SYNTAX      Unsigned64TC
UNITS       "write requests"
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The applPastChannelWriteRequests attribute reports
    the number of write requests, regardless of completion
    status, made by this running application element or
    service instance for this former channel.

    Write requests are counted in terms of system calls,
    rather than API calls."
-- 1.3.6.1.2.1.62.1.3.2.1.10 -- ::= { applPastChannelEntry 10 }

applPastChannelWriteReqsLow OBJECT-TYPE
SYNTAX      Unsigned32
UNITS       "write requests"
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "This attribute corresponds to the low thirty-two
    bits of applPastChannelWriteRequests."
-- 1.3.6.1.2.1.62.1.3.2.1.11 -- ::= { applPastChannelEntry 11 }

applPastChannelWriteFailures OBJECT-TYPE
SYNTAX      Unsigned32
UNITS       "failed write requests"
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "This attribute reports the number of failed write
    requests."
-- 1.3.6.1.2.1.62.1.3.2.1.12 -- ::= { applPastChannelEntry 12 }

applPastChannelBytesWritten OBJECT-TYPE
SYNTAX      Unsigned64TC
UNITS       "bytes"
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "This attribute reports the number of bytes written to
    this former channel by this running application element
    or service instance. Only bytes successfully written
    (no errors reported by the API in use by the application)
    are included in this count."
-- 1.3.6.1.2.1.62.1.3.2.1.13 -- ::= { applPastChannelEntry 13 }

```

**applPastChannelBytesWritLow OBJECT-TYPE**

**SYNTAX** Unsigned32  
**UNITS** "bytes"  
**MAX-ACCESS** read-only  
**STATUS** current

**DESCRIPTION**

"This attribute corresponds to the low thirty-two bits of applPastChannelBytesWritten."

-- 1.3.6.1.2.1.62.1.3.2.1.14 -- ::= { applPastChannelEntry 14 }

**applPastChannelLastWriteTime OBJECT-TYPE**

**SYNTAX** DateAndTime  
**MAX-ACCESS** read-only  
**STATUS** current

**DESCRIPTION**

"The applPastChannelLastWriteTime attribute reports the time of the most recent write request made by this running application element or service instance, regardless of completion status, for this former channel.

If no write requests have been made the value of this attribute shall be '0000000000000000'H"

**DEFVAL** { '0000000000000000'H }

-- 1.3.6.1.2.1.62.1.3.2.1.15 -- ::= { applPastChannelEntry 15 }

-- \*\*\*\*\*

-- applPastFileTable - information specific to former files

-- \*\*\*\*\*

**applPastFileTable OBJECT-TYPE**

**SYNTAX** SEQUENCE OF ApplPastFileEntry  
**MAX-ACCESS** not-accessible  
**STATUS** current

**DESCRIPTION**

"The applPastFileTable supplements the applPastChannelTable for entries corresponding to channels which were files. The indexing structure is identical to applPastChannelTable. An entry exists in the applPastFileTable only if there is a corresponding (same index values) entry in the applPastChannelTable and if the channel was a file.

Entries for closed files are removed when the corresponding entries are removed from the applPastChannelTable."

-- 1.3.6.1.2.1.62.1.3.3 -- ::= { applPastChannelGroup 3 }

**applPastFileEntry OBJECT-TYPE**

**SYNTAX** ApplPastFileEntry  
**MAX-ACCESS** not-accessible  
**STATUS** current

**DESCRIPTION**

"An applPastFileEntry provides additional, file-specific information to complement the corresponding applPastChannelEntry for a channel which was a file."

**INDEX** {  
    applElmtOrSvc,  
    applElmtOrSvcId,  
    applPastChannelIndex  
}

-- 1.3.6.1.2.1.62.1.3.3.1 -- ::= { applPastFileTable 1 }

**ApplPastFileEntry ::= SEQUENCE** {  
    applPastFileName LongUtf8String,  
    applPastFileSizeHigh Unsigned32,  
    applPastFileSizeLow Unsigned32,

```

        applPastFileMode      INTEGER
    }

applPastFileName OBJECT-TYPE
    SYNTAX      LongUtf8String
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "This attribute records the last known value of
        applOpenFileName before the channel was closed."
-- 1.3.6.1.2.1.62.1.3.3.1.1 -- ::= { applPastFileEntry 1 }

applPastFileSizeHigh OBJECT-TYPE
    SYNTAX      Unsigned32
    UNITS       "2^32 byte blocks"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "This attribute records the value of applOpenFileSizeHigh
        at the time this channel was closed.

        For example, for a file with a total size of
        4,294,967,296 bytes, this attribute would have a value
        of 1; for a file with a total size of 4,294,967,295
        bytes this attribute's value would be 0."
-- 1.3.6.1.2.1.62.1.3.3.1.2 -- ::= { applPastFileEntry 2 }

applPastFileSizeLow OBJECT-TYPE
    SYNTAX      Unsigned32
    UNITS       "bytes"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "This attribute records the value of applOpenFileSizeLow
        at the time this channel was closed.

        For example, for a file with a total size of
        4,294,967,296 bytes this attribute would have a value
        of 0; for a file with a total size of 4,294,967,295
        bytes this attribute's value would be 4,294,967,295."
-- 1.3.6.1.2.1.62.1.3.3.1.3 -- ::= { applPastFileEntry 3 }

applPastFileMode OBJECT-TYPE
    SYNTAX      INTEGER {
        read(1),
        write(2),
        readWrite(3) }
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "This attribute records the value of applOpenFileMode
        at the time this channel was closed."
-- 1.3.6.1.2.1.62.1.3.3.1.4 -- ::= { applPastFileEntry 4 }
-- *****
--
--     applPastConTable - information specific to former connections
--
-- *****

applPastConTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF ApplPastConEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The applPastConTable supplements the applPastChannelTable
        for entries corresponding to channels which were
        connections. The indexing structure is identical
        to applPastChannelTable. An entry exists in the

```

*applPastConTable* only if there is a corresponding (same index values) entry in the *applPastChannelTable* and if the channel was a connection.

*Entries for closed connections are removed when the corresponding entries are removed from the applPastChannelTable."*

```
-- 1.3.6.1.2.1.62.1.3.4 -- ::= { applPastChannelGroup 4 }
```

**applPastConEntry OBJECT-TYPE**

**SYNTAX** ApplPastConEntry

**MAX-ACCESS** not-accessible

**STATUS** current

**DESCRIPTION**

*"An applPastConEntry provides additional, connection-specific information to complement the corresponding applPastChannelEntry for a channel which was a connection."*

**INDEX** {

applElmtOrSvc,  
applElmtOrSvcId,  
applPastChannelIndex

}

```
-- 1.3.6.1.2.1.62.1.3.4.1 -- ::= { applPastConTable 1 }
```

**ApplPastConEntry ::= SEQUENCE** {

applPastConTransport TDomain,  
applPastConNearEndAddr ApplTAddress,  
applPastConNearEndpoint SnmpAdminString,  
applPastConFarEndAddr ApplTAddress,  
applPastConFarEndpoint SnmpAdminString,  
applPastConApplication SnmpAdminString

}

**applPastConTransport OBJECT-TYPE**

**SYNTAX** TDomain

**MAX-ACCESS** read-only

**STATUS** current

**DESCRIPTION**

*"The applPastConTransport attribute identifies the transport protocol that was in use for this former connection. If the transport protocol could not be determined, the value { 0 0 } shall be used."*

**DEFVAL** { zeroDotZero }

```
-- 1.3.6.1.2.1.62.1.3.4.1.1 -- ::= { applPastConEntry 1 }
```

**applPastConNearEndAddr OBJECT-TYPE**

**SYNTAX** ApplTAddress

**MAX-ACCESS** read-only

**STATUS** current

**DESCRIPTION**

*"The applPastConNearEndAddr attribute reports the transport address and port information for the near end of this former connection."*

*If the information could not be determined, the value shall be a zero-length string."*

**DEFVAL** { "" }

```
-- 1.3.6.1.2.1.62.1.3.4.1.2 -- ::= { applPastConEntry 2 }
```

**applPastConNearEndpoint OBJECT-TYPE**

**SYNTAX** SnmpAdminString

**MAX-ACCESS** read-only

**STATUS** current

**DESCRIPTION**

*"The applPastConNearEndpoint attribute reports the fully-qualified domain name and port information for the near end of this former connection."*

The format of this attribute for TCP and UDP-based protocols is the fully-qualified domain name immediately followed by a colon which is immediately followed by the decimal representation of the port number.

If the information could not be determined, the value shall be a zero-length string."

```
DEFVAL { "" }  
-- 1.3.6.1.2.1.62.1.3.4.1.3 -- ::= { applPastConEntry 3 }
```

**applPastConFarEndAddr OBJECT-TYPE**

```
SYNTAX      ApplTAddress  
MAX-ACCESS  read-only  
STATUS      current  
DESCRIPTION
```

"The applPastConFarEnd attribute reports the transport address and port information for the far end of this former connection.

If not known, as in the case of a connectionless transport, the value of this attribute shall be a zero-length string."

```
DEFVAL { "" }  
-- 1.3.6.1.2.1.62.1.3.4.1.4 -- ::= { applPastConEntry 4 }
```

**applPastConFarEndpoint OBJECT-TYPE**

```
SYNTAX      SnmpAdminString  
MAX-ACCESS  read-only  
STATUS      current  
DESCRIPTION
```

"The applPastConFarEndpoint attribute reports the transport address and port information for the far end of this former connection.

The format of this attribute for TCP and UDP-based protocols is the fully-qualified domain name immediately followed by a colon which is immediately followed by the decimal representation of the port number.

If not known, as in the case of a connectionless transport, the value of this attribute shall be a zero-length string."

```
DEFVAL { "" }  
-- 1.3.6.1.2.1.62.1.3.4.1.5 -- ::= { applPastConEntry 5 }
```

**applPastConApplication OBJECT-TYPE**

```
SYNTAX      SnmpAdminString  
MAX-ACCESS  read-only  
STATUS      current  
DESCRIPTION
```

"The applPastConApplication attribute identifies the application layer protocol that was in use. Where possible, the values defined in [13] shall be used. If not known, the value of this attribute shall be a zero-length string."

```
DEFVAL { "" }  
-- 1.3.6.1.2.1.62.1.3.4.1.6 -- ::= { applPastConEntry 6 }
```

```
-- *****  
--  
-- applPastTransStreamTable - historical  
-- information for transaction stream monitoring  
--  
-- *****
```

**applPastTransStreamTable OBJECT-TYPE**

```
SYNTAX      SEQUENCE OF ApplPastTransStreamEntry  
MAX-ACCESS  not-accessible  
STATUS      current
```

**DESCRIPTION**

*"The applPastTransStreamTable contains common information for historical transaction statistics."*

-- 1.3.6.1.2.1.62.1.3.5 -- ::= { applPastChannelGroup 5 }

**applPastTransStreamEntry OBJECT-TYPE**

**SYNTAX** ApplPastTransStreamEntry

**MAX-ACCESS** not-accessible

**STATUS** current

**DESCRIPTION**

*"An applPastTransStreamEntry contains information for a single former transaction stream. A transaction stream could have been a network connection, file, or other source of transactions."*

**INDEX** {

applElmtOrSvc,  
applElmtOrSvcId,  
applPastChannelIndex

}

-- 1.3.6.1.2.1.62.1.3.5.1 -- ::= { applPastTransStreamTable 1 }

**ApplPastTransStreamEntry ::= SEQUENCE** {

applPastTransStreamDescr SnmpAdminString,  
applPastTransStreamUnitOfWork SnmpAdminString,  
applPastTransStreamInvokes Unsigned64TC,  
applPastTransStreamInvokesLow Unsigned32,  
applPastTransStreamInvCumTimes Unsigned32,  
applPastTransStreamInvRspTimes Unsigned32,  
applPastTransStreamPerforms Unsigned64TC,  
applPastTransStreamPerformsLow Unsigned32,  
applPastTransStreamPrfCumTimes Unsigned32,  
applPastTransStreamPrfRspTimes Unsigned32

}

**applPastTransStreamDescr OBJECT-TYPE**

**SYNTAX** SnmpAdminString

**MAX-ACCESS** read-only

**STATUS** current

**DESCRIPTION**

*"The applPastTransStreamDescr attribute provides a human-readable description of this transaction stream."*

*If no descriptive information is available, this attribute's value shall be a zero-length string."*

**DEFVAL** { "" }

-- 1.3.6.1.2.1.62.1.3.5.1.1 -- ::= { applPastTransStreamEntry 1 }

**applPastTransStreamUnitOfWork OBJECT-TYPE**

**SYNTAX** SnmpAdminString

**MAX-ACCESS** read-only

**STATUS** current

**DESCRIPTION**

*"The applPastTransStreamUnitOfWork attribute provides a human-readable definition of what the unit of work is for this transaction stream."*

*If no descriptive information is available, this attribute's value shall be a zero-length string."*

**DEFVAL** { "" }

-- 1.3.6.1.2.1.62.1.3.5.1.2 -- ::= { applPastTransStreamEntry 2 }

**applPastTransStreamInvokes OBJECT-TYPE**

**SYNTAX** Unsigned64TC

**UNITS** "transactions"

**MAX-ACCESS** read-only

**STATUS** current

**DESCRIPTION**

*"Cumulative count of requests / invocations issued"*

```

        for this transaction stream when it was active."
-- 1.3.6.1.2.1.62.1.3.5.1.3 -- ::= { applPastTransStreamEntry 3 }

applPastTransStreamInvokesLow OBJECT-TYPE
    SYNTAX      Unsigned32
    UNITS       "transactions"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "This object corresponds to the low thirty-two
        bits of applPastTransStreamInvokes."
-- 1.3.6.1.2.1.62.1.3.5.1.4 -- ::= { applPastTransStreamEntry 4 }

applPastTransStreamInvCumTimes OBJECT-TYPE
    SYNTAX      Unsigned32
    UNITS       "milliseconds"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The applPastTransStreamInvCumTimes attribute reports the
        cumulative sum of the lengths of the intervals times
        measured between the transmission of requests and the
        receipt of (the first of) the corresponding response(s)."
-- 1.3.6.1.2.1.62.1.3.5.1.5 -- ::= { applPastTransStreamEntry 5 }

applPastTransStreamInvRspTimes OBJECT-TYPE
    SYNTAX      Unsigned32
    UNITS       "milliseconds"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The applPastTransStreamInvRspTimes attribute reports the
        cumulative sum of the lengths of the intervals measured
        between the receipt of the first and last of multiple
        responses to a request.

        For transaction streams which do not permit multiple
        responses to a single request, this attribute will be
        zero."
-- 1.3.6.1.2.1.62.1.3.5.1.6 -- ::= { applPastTransStreamEntry 6 }

applPastTransStreamPerforms OBJECT-TYPE
    SYNTAX      Unsigned64TC
    UNITS       "transactions"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Total number of transactions performed."
-- 1.3.6.1.2.1.62.1.3.5.1.7 -- ::= { applPastTransStreamEntry 7 }

applPastTransStreamPerformsLow OBJECT-TYPE
    SYNTAX      Unsigned32
    UNITS       "transactions"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "This objecy reports the low thirty-two bits of
        applPastTransStreamPerforms."
-- 1.3.6.1.2.1.62.1.3.5.1.8 -- ::= { applPastTransStreamEntry 8 }

applPastTransStreamPrfCumTimes OBJECT-TYPE
    SYNTAX      Unsigned32
    UNITS       "milliseconds"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The applPastTransStreamPrfCumTimes attribute reports the
        cumulative sum of the lengths of the intervals measured
        between receipt of requests and the transmission of the

```

```

corresponding responses."
-- 1.3.6.1.2.1.62.1.3.5.1.9 -- ::= { applPastTransStreamEntry 9 }

```

**applPastTransStreamPrfRspTimes OBJECT-TYPE**

```

SYNTAX      Unsigned32
UNITS       "milliseconds"
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "For each transaction performed, the elapsed time between
    when the first response is enqueued and when the last
    response is enqueued is added to this cumulative sum.

    For single-response protocols, the value of
    applPastTransStreamPrfRspTimes will be zero."

```

```

-- 1.3.6.1.2.1.62.1.3.5.1.10 -- ::= { applPastTransStreamEntry 10 }
-- *****

```

**applPastTransFlowTable**

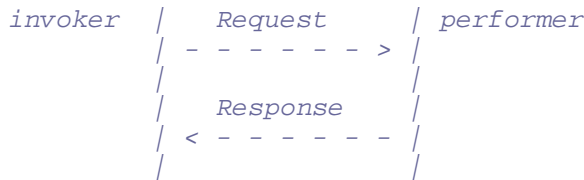
**applPastTransFlowTable OBJECT-TYPE**

```

SYNTAX      SEQUENCE OF ApplPastTransFlowEntry
MAX-ACCESS  not-accessible
STATUS      current
DESCRIPTION
    "The applPastTransFlowTable contains entries, organized by
    application instance or running application element,
    direction of flow, and type (request/response) for each
    former transaction stream.

```

The simple model of a transaction used here looks like this:



Since in some protocols it is possible for an entity to take on both the invoker and performer roles, information here is accumulated for transmitted and received requests, as well as for transmitted and received responses. Counts are maintained for both transactions and bytes transferred."

```

-- 1.3.6.1.2.1.62.1.3.6 -- ::= { applPastChannelGroup 6 }

```

**applPastTransFlowEntry OBJECT-TYPE**

```

SYNTAX      ApplPastTransFlowEntry
MAX-ACCESS  not-accessible
STATUS      current
DESCRIPTION
    "An applPastTransFlowEntry records transaction throughput
    information for requests or response in a particular
    direction (transmit / receive) for a transaction stream.

```

Entries in this table correspond to those in the applPastTransStreamTable with identical values for the applElmtOrSvc, applElmtOrSvcId, and the applPastChannelIndex."

```

INDEX {
    applElmtOrSvc,
    applElmtOrSvcId,
    applPastChannelIndex,
    applPastTransFlowDirection,
    applPastTransFlowReqRsp
}

```

```

    }
-- 1.3.6.1.2.1.62.1.3.6.1 -- ::= { applPastTransFlowTable 1 }

ApplPastTransFlowEntry ::= SEQUENCE {
    applPastTransFlowDirection INTEGER,
    applPastTransFlowReqRsp    INTEGER,
    applPastTransFlowTrans     Unsigned64TC,
    applPastTransFlowTransLow  Unsigned32,
    applPastTransFlowBytes     Unsigned64TC,
    applPastTransFlowBytesLow  Unsigned32,
    applPastTransFlowTime      DateAndTime
}

applPastTransFlowDirection OBJECT-TYPE
    SYNTAX      INTEGER {
        transmit(1),
        receive(2) }
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The applPastTransFlowDirection index serves
        to identify an entry as containing information
        pertaining to the transmit (1) or receive (2) flow
        of a past transaction stream. This index corresponds
        to applTransactFlowDirection."
-- 1.3.6.1.2.1.62.1.3.6.1.1 -- ::= { applPastTransFlowEntry 1 }

applPastTransFlowReqRsp OBJECT-TYPE
    SYNTAX      INTEGER {
        request(1),
        response(2) }
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "The value of the applPastTransFlowReqRsp index indicates
        whether this entry contains information on requests
        (1), or responses (2). This index corresponds to
        applTransactFlowReqRsp."
-- 1.3.6.1.2.1.62.1.3.6.1.2 -- ::= { applPastTransFlowEntry 2 }

applPastTransFlowTrans OBJECT-TYPE
    SYNTAX      Unsigned64TC
    UNITS       "transactions"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The applPastTransFlowTrans attribute reports the number
        of request/response (as indicated by the
        applPastTransFlowReqRsp index) transactions
        received/generated (as indicated by the
        applPastTransFlowDirection index) handled on this
        transaction stream."
-- 1.3.6.1.2.1.62.1.3.6.1.3 -- ::= { applPastTransFlowEntry 3 }

applPastTransFlowTransLow OBJECT-TYPE
    SYNTAX      Unsigned32
    UNITS       "transactions"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "This attribute corresponds to the low thirty-two
        bits of applPastTransFlowTrans."
-- 1.3.6.1.2.1.62.1.3.6.1.4 -- ::= { applPastTransFlowEntry 4 }

applPastTransFlowBytes OBJECT-TYPE
    SYNTAX      Unsigned64TC
    UNITS       "bytes"
    MAX-ACCESS  read-only

```

STATUS current  
DESCRIPTION

"The *applPastTransFlowBytes* attribute reports the number of request/response (as indicated by the *applPastTransFlowReqRsp* index) bytes received/generated (as indicated by the *applPastTransFlowDirection* index) handled on this transaction stream.

All application layer bytes are included in this count, including any application layer wrappers, headers, or other overhead."

-- 1.3.6.1.2.1.62.1.3.6.1.5 -- ::= { *applPastTransFlowEntry* 5 }

**applPastTransFlowBytesLow OBJECT-TYPE**

SYNTAX Unsigned32  
UNITS "bytes"  
MAX-ACCESS read-only  
STATUS current

DESCRIPTION

"This attribute corresponds to the low thirty-two bits of *applPastTransFlowBytes*."

-- 1.3.6.1.2.1.62.1.3.6.1.6 -- ::= { *applPastTransFlowEntry* 6 }

**applPastTransFlowTime OBJECT-TYPE**

SYNTAX DateAndTime  
MAX-ACCESS read-only  
STATUS current

DESCRIPTION

"The *applPastTransFlowTime* attribute records the time of the processing (receipt or transmission as indicated by the *applPastTransFlowDirection* index) of the last request/response (as indicated by the *applPastTransFlowReqRsp* index) on this transaction stream.

If no requests/responses been received/transmitted by this entity over this transaction stream, the value of this attribute shall be '0000000000000000'H"

DEFVAL { '0000000000000000'H }

-- 1.3.6.1.2.1.62.1.3.6.1.7 -- ::= { *applPastTransFlowEntry* 7 }

-- \*\*\*\*\*

--  
-- *applPastTransKindTable* - transaction statistics broken down  
-- according to the kinds of transactions in each direction  
-- for a transaction stream.

-- \*\*\*\*\*

**applPastTransKindTable OBJECT-TYPE**

SYNTAX SEQUENCE OF *ApplPastTransKindEntry*  
MAX-ACCESS not-accessible  
STATUS current

DESCRIPTION

"The *applPastTransKindTable* provides transaction statistics broken down by kinds of transaction. The definition of the kinds of transactions is specific to the application protocol in use, and may be documented in the form of an applicability statement."

-- 1.3.6.1.2.1.62.1.3.7 -- ::= { *applPastChannelGroup* 7 }

**applPastTransKindEntry OBJECT-TYPE**

SYNTAX *ApplPastTransKindEntry*  
MAX-ACCESS not-accessible  
STATUS current

DESCRIPTION

"An *applPastTransKindEntry* reports historical data for a specific service instance or running application element's use of a specific transaction stream in a particular direction in requests or responses

(as indicated by the *applPastTransFlowReqRsp* index)  
broken down by transaction kind, as indicated by the  
*applPastTransKind* index."

```
INDEX {
    applElmtOrSvc,
    applElmtOrSvcId,
    applPastChannelIndex,
    applPastTransFlowDirection,
    applPastTransFlowReqRsp,
    applPastTransKind
}
-- 1.3.6.1.2.1.62.1.3.7.1 -- ::= { applPastTransKindTable 1 }
```

```
ApplPastTransKindEntry ::= SEQUENCE {
    applPastTransKind      SnmpAdminString,
    applPastTransKindTrans Unsigned64TC,
    applPastTransKindTransLow Unsigned32,
    applPastTransKindBytes Unsigned64TC,
    applPastTransKindBytesLow Unsigned32,
    applPastTransKindTime  DateAndTime
}
```

#### **applPastTransKind OBJECT-TYPE**

```
SYNTAX      SnmpAdminString (SIZE (1..32))
MAX-ACCESS  not-accessible
STATUS      current
DESCRIPTION
```

"The *applPastTransKind* index is the human-readable identifier for a particular transaction kind within the context of an application protocol. The values to be used for a particular protocol may be identified in an applicability statement. This index corresponds to *applTransactKind*."

```
-- 1.3.6.1.2.1.62.1.3.7.1.1 -- ::= { applPastTransKindEntry 1 }
```

#### **applPastTransKindTrans OBJECT-TYPE**

```
SYNTAX      Unsigned64TC
UNITS       "transactions"
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
```

"For this transaction stream, this attribute records the total number of transactions of the type identified by the indexes. The type is characterized according to the receive/transmit direction (*applPastTransFlowDirecton*), whether it was a request or a response (*applPastTransFlowReqRsp*), and the protocol-specific transaction kind (*applPastTransKind*). stream for this transaction kind."

```
-- 1.3.6.1.2.1.62.1.3.7.1.2 -- ::= { applPastTransKindEntry 2 }
```

#### **applPastTransKindTransLow OBJECT-TYPE**

```
SYNTAX      Unsigned32
UNITS       "transactions"
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
```

"The *applPastTransKindTransLow* attribute reports the low thirty-two bits of *applPastTransKindTrans*."

```
-- 1.3.6.1.2.1.62.1.3.7.1.3 -- ::= { applPastTransKindEntry 3 }
```

#### **applPastTransKindBytes OBJECT-TYPE**

```
SYNTAX      Unsigned64TC
UNITS       "bytes"
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
```

"For this transaction stream and transaction kind, the

*applPastTransKindBytes* attribute reports the number of bytes received or generated (as indicated by the *applPastTransFlowDirection* index) in requests or responses (as indicated by the *applPastTransFlowReqRsp* index).

All application layer bytes are included in this count, including any application layer wrappers, headers, or other overhead."

```
-- 1.3.6.1.2.1.62.1.3.7.1.4 -- ::= { applPastTransKindEntry 4 }
```

**applPastTransKindBytesLow OBJECT-TYPE**

**SYNTAX** Unsigned32  
**UNITS** "bytes"  
**MAX-ACCESS** read-only  
**STATUS** current  
**DESCRIPTION**

*"The applPastTransKindBytesLow attribute corresponds to the low thirty-two bits of applPastTransKindBytes."*

```
-- 1.3.6.1.2.1.62.1.3.7.1.5 -- ::= { applPastTransKindEntry 5 }
```

**applPastTransKindTime OBJECT-TYPE**

**SYNTAX** DateAndTime  
**MAX-ACCESS** read-only  
**STATUS** current  
**DESCRIPTION**

*"The applPastTransKindTime attribute records the time of the processing (receipt or transmission as indicated by the applPastTransFlowDirection index) of the last request/response (as indicated by the applPastTransFlowReqRsp index) of this kind of transaction on this transaction stream.*

*If no requests/responses of this kind were received/transmitted over this transaction stream, the value of this attribute shall be '0000000000000000'H"*

**DEFVAL** { '0000000000000000'H }

```
-- 1.3.6.1.2.1.62.1.3.7.1.6 -- ::= { applPastTransKindEntry 6 }
```

```
-- *****
```

```
-- applElmtRunControlGroup - monitor and control running  
-- application elements
```

```
-- *****
```

**applElmtRunStatusTable OBJECT-TYPE**

**SYNTAX** SEQUENCE OF ApplElmtRunStatusEntry  
**MAX-ACCESS** not-accessible  
**STATUS** current  
**DESCRIPTION**

*"This table provides information on running application elements, complementing information available in the correspondingly indexed sysAppElmtRunTable [31]."*

```
-- 1.3.6.1.2.1.62.1.4.1 -- ::= { applElmtRunControlGroup 1 }
```

**applElmtRunStatusEntry OBJECT-TYPE**

**SYNTAX** ApplElmtRunStatusEntry  
**MAX-ACCESS** not-accessible  
**STATUS** current  
**DESCRIPTION**

*"An applElmtRunStatusEntry contains information to support the control and monitoring of a single running application element."*

**INDEX** {  
    sysAppElmtRunIndex  
}

```
-- 1.3.6.1.2.1.62.1.4.1.1 -- ::= { applElmtRunStatusTable 1 }
```

```
AppElmtRunStatusEntry ::= SEQUENCE {
```

```

    applElmtRunStatusSuspended      TruthValue,
    applElmtRunStatusHeapUsage      Unsigned32,
    applElmtRunStatusOpenConnections Unsigned32,
    applElmtRunStatusOpenFiles      Gauge32,
    applElmtRunStatusLastErrorMsg   SnmpAdminString,
    applElmtRunStatusLastErrorTime  DateAndTime
}

```

**applElmtRunStatusSuspended OBJECT-TYPE**

```

SYNTAX      TruthValue
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION

```

*"The applElmtRunStatusSuspended attribute reports whether processing by this running application element has been suspended, whether by management request or by other means."*

```

-- 1.3.6.1.2.1.62.1.4.1.1.1 -- ::= { applElmtRunStatusEntry 1 }

```

**applElmtRunStatusHeapUsage OBJECT-TYPE**

```

SYNTAX      Unsigned32
UNITS       "bytes"
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION

```

*"The applElmtRunStatusHeapUsage reports the current approximate heap usage by this running application element."*

```

-- 1.3.6.1.2.1.62.1.4.1.1.2 -- ::= { applElmtRunStatusEntry 2 }

```

**applElmtRunStatusOpenConnections OBJECT-TYPE**

```

SYNTAX      Unsigned32
UNITS       "connections"
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION

```

*"The applElmtRunStatusOpenConnections attribute reports the current number of open connections in use by this running application element."*

```

-- 1.3.6.1.2.1.62.1.4.1.1.3 -- ::= { applElmtRunStatusEntry 3 }

```

**applElmtRunStatusOpenFiles OBJECT-TYPE**

```

SYNTAX      Gauge32
UNITS       "files"
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION

```

*"The applElmtRunStatusOpenFiles attribute reports the current number of open files in use by this running application element."*

```

-- 1.3.6.1.2.1.62.1.4.1.1.4 -- ::= { applElmtRunStatusEntry 4 }

```

**applElmtRunStatusLastErrorMsg OBJECT-TYPE**

```

SYNTAX      SnmpAdminString
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION

```

*"The applElmtRunStatusLastErrorMessage attribute reports the most recent error message (typically written to stderr or a system error logging facility) from this running application element. If no such message has yet been generated, the value of this attribute shall be a zero-length string."*

```

DEFVAL      { "" }

```

```

-- 1.3.6.1.2.1.62.1.4.1.1.5 -- ::= { applElmtRunStatusEntry 5 }

```

**applElmtRunStatusLastErrorTime OBJECT-TYPE**

```

SYNTAX      DateAndTime

```

```

MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The applElmtRunStatusLastErrorTime attribute reports the
    time of the most recent error message in
    applElmtRunStatusLastErrorMsg.

    If no such message has yet been generated, the value
    of this attribute shall be '0000000000000000'H"
DEFVAL { '0000000000000000'H }
-- 1.3.6.1.2.1.62.1.4.1.1.6 -- ::= { applElmtRunStatusEntry 6 }
-- *****
--
-- applElmtRunControlTable - control running application
-- elements
--
-- *****

```

```

applElmtRunControlTable OBJECT-TYPE
SYNTAX SEQUENCE OF ApplElmtRunControlEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
    "This table provides the ability to control application
    elements, complementing information available in the
    correspondingly indexed sysAppElmtRunTable [31]."
-- 1.3.6.1.2.1.62.1.4.2 -- ::= { applElmtRunControlGroup 2 }

```

```

applElmtRunControlEntry OBJECT-TYPE
SYNTAX ApplElmtRunControlEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
    "An applElmtRunControlEntry contains information to
    support the control of a single running application
    element."
INDEX {
    sysAppElmtRunIndex
}
-- 1.3.6.1.2.1.62.1.4.2.1 -- ::= { applElmtRunControlTable 1 }

```

```

ApplElmtRunControlEntry ::= SEQUENCE {
    applElmtRunControlSuspend TruthValue,
    applElmtRunControlReconfigure TestAndIncr,
    applElmtRunControlTerminate TruthValue
}

```

```

applElmtRunControlSuspend OBJECT-TYPE
SYNTAX TruthValue
MAX-ACCESS read-write
STATUS current
DESCRIPTION
    "Setting this variable to 'true' requests the suspension
    of processing by this running application element.
    Setting this variable to 'false' requests that processing
    be resumed. The effect, if any, will be reported by the
    applElmtRunStatusSuspended attribute."
DEFVAL { false }
-- 1.3.6.1.2.1.62.1.4.2.1.1 -- ::= { applElmtRunControlEntry 1 }

```

```

applElmtRunControlReconfigure OBJECT-TYPE
SYNTAX TestAndIncr
MAX-ACCESS read-write
STATUS current
DESCRIPTION
    "Changing the value of this variable requests that the
    running application element re-load its configuration
    (like SIGHUP for many UNIX-based daemons).

```

Note that completion of a SET on this object only implies that configuration reload was initiated, not necessarily that the reload has been completed."

```
-- 1.3.6.1.2.1.62.1.4.2.1.2 -- ::= { applElmtRunControlEntry 2 }
```

**applElmtRunControlTerminate OBJECT-TYPE**

**SYNTAX** TruthValue  
**MAX-ACCESS** read-write  
**STATUS** current

**DESCRIPTION**

"Setting the value of applElmtRunControlTerminate to 'true' requests that the running application element terminate processing and exit in an orderly manner. This is a 'polite' shutdown request.

When read, this object's value will be 'false' except when orderly termination is in progress.

Note that completion of a SET on this object only implies that termination was initiated, not necessarily that the termination has been completed."

**DEFVAL** { false }

```
-- 1.3.6.1.2.1.62.1.4.2.1.3 -- ::= { applElmtRunControlEntry 3 }
```

```
-- *****
```

```
-- Conformance requirements
```

```
-- *****
```

**applicationMibGroups OBJECT IDENTIFIER**

```
-- 1.3.6.1.2.1.62.2.1 -- ::= { applicationMibConformance 1 }
```

**applicationMonitorGroup OBJECT-GROUP**

**OBJECTS** {  
applSrvInstQual,  
applSrvName,  
applSrvIndex,  
applSrvInstance,  
applOpenChannelOpenTime,  
applOpenChannelReadRequestsLow,  
applOpenChannelReadFailures,  
applOpenChannelBytesReadLow,  
applOpenChannelLastReadTime,  
applOpenChannelWriteRequestsLow,  
applOpenChannelWriteFailures,  
applOpenChannelBytesWrittenLow,  
applOpenChannelLastWriteTime,  
applOpenFileName,  
applOpenFileSizeHigh,  
applOpenFileSizeLow,  
applOpenFileMode,  
applOpenConnectionTransport,  
applOpenConnectionNearEndAddr,  
applOpenConnectionNearEndpoint,  
applOpenConnectionFarEndAddr,  
applOpenConnectionFarEndpoint,  
applOpenConnectionApplication  
}

**STATUS** current

**DESCRIPTION**

"This group represents the basic capabilities of this MIB."

```
-- 1.3.6.1.2.1.62.2.1.1 -- ::= { applicationMibGroups 1 }
```

**applicationFastMonitorGroup OBJECT-GROUP**

**OBJECTS** {  
applOpenChannelReadRequests,  
applOpenChannelBytesRead,  
applOpenChannelWriteRequests,  
}

```

        applOpenChannelBytesWritten
    }
    STATUS          current
    DESCRIPTION
        "This group comprises 64-bit counters mandatory in
        high-throughput environments, where 32-bit counters
        could wrap in less than an hour."
-- 1.3.6.1.2.1.62.2.1.2 -- ::= { applicationMibGroups 2 }

applicationTransactGroup OBJECT-GROUP
    OBJECTS {
        applTransactStreamDescr,
        applTransactStreamUnitOfWork,
        applTransactStreamInvokesLow,
        applTransactStreamInvCumTimes,
        applTransactStreamInvRspTimes,
        applTransactStreamPerformsLow,
        applTransactStreamPrfCumTimes,
        applTransactStreamPrfRspTimes,
        applTransactFlowTransLow,
        applTransactFlowBytesLow,
        applTransactFlowTime,
        applTransactKindTransLow,
        applTransactKindBytesLow,
        applTransactKindTime
    }
    STATUS          current
    DESCRIPTION
        "This group comprises objects appropriate from monitoring
        transaction-structured flows."
-- 1.3.6.1.2.1.62.2.1.3 -- ::= { applicationMibGroups 3 }

applicationFastTransactGroup OBJECT-GROUP
    OBJECTS {
        applTransactStreamInvokes,
        applTransactStreamPerforms,
        applTransactFlowTrans,
        applTransactFlowBytes,
        applTransactKindTrans,
        applTransactKindBytes
    }
    STATUS          current
    DESCRIPTION
        "This group comprises 64-bit transaction counters required in
        high-throughput environments, where 32-bit counters could
        wrap in less than an hour."
-- 1.3.6.1.2.1.62.2.1.4 -- ::= { applicationMibGroups 4 }

applicationHistoryGroup OBJECT-GROUP
    OBJECTS {
        applPastChannelControlCollect,
        applPastChannelControlMaxRows,
        applPastChannelControlTimeLimit,
        applPastChannelControlRemItems,
        applPastChannelOpenTime,
        applPastChannelCloseTime,
        applPastChannelReadReqsLow,
        applPastChannelReadFailures,
        applPastChannelBytesReadLow,
        applPastChannelLastReadTime,
        applPastChannelWriteReqsLow,
        applPastChannelWriteFailures,
        applPastChannelBytesWritLow,
        applPastChannelLastWriteTime,
        applPastFileName,
        applPastFileSizeHigh,
        applPastFileSizeLow,
        applPastFileMode,
        applPastConTransport,

```

```

        applPastConNearEndAddr,
        applPastConNearEndpoint,
        applPastConFarEndAddr,
        applPastConFarEndpoint,
        applPastConApplication
    }
    STATUS          current
    DESCRIPTION
        "This group models basic historical data."
-- 1.3.6.1.2.1.62.2.1.5 -- ::= { applicationMibGroups 5 }

applicationFastHistoryGroup OBJECT-GROUP
    OBJECTS {
        applPastChannelReadRequests,
        applPastChannelBytesRead,
        applPastChannelWriteRequests,
        applPastChannelBytesWritten
    }
    STATUS          current
    DESCRIPTION
        "This group comprises additional 64-bit objects required
        for recording historical data in high-volume environments,
        where a 32-bit integer would be insufficient."
-- 1.3.6.1.2.1.62.2.1.6 -- ::= { applicationMibGroups 6 }

applicationTransHistoryGroup OBJECT-GROUP
    OBJECTS {
        applPastTransStreamDescr,
        applPastTransStreamUnitOfWork,
        applPastTransStreamInvokesLow,
        applPastTransStreamInvCumTimes,
        applPastTransStreamInvRspTimes,
        applPastTransStreamPerformsLow,
        applPastTransStreamPrfCumTimes,
        applPastTransStreamPrfRspTimes,
        applPastTransFlowTransLow,
        applPastTransFlowBytesLow,
        applPastTransFlowTime,
        applPastTransKindTransLow,
        applPastTransKindBytesLow,
        applPastTransKindTime
    }
    STATUS          current
    DESCRIPTION
        "This group represents historical data for transaction-
        structured information streams."
-- 1.3.6.1.2.1.62.2.1.7 -- ::= { applicationMibGroups 7 }

applicationFastTransHistoryGroup OBJECT-GROUP
    OBJECTS {
        applPastTransFlowTrans,
        applPastTransFlowBytes,
        applPastTransKindTrans,
        applPastTransKindBytes,
        applPastTransStreamPerforms,
        applPastTransStreamInvokes
    }
    STATUS          current
    DESCRIPTION
        "This group contains 64-bit objects required for historical
        records on high-volume transaction-structured streams,
        where 32-bit integers would be insufficient."
-- 1.3.6.1.2.1.62.2.1.8 -- ::= { applicationMibGroups 8 }

applicationRunGroup OBJECT-GROUP
    OBJECTS {
        applElmtRunStatusSuspended,
        applElmtRunStatusHeapUsage,
        applElmtRunStatusOpenConnections,

```

```

        applElmtRunStatusOpenFiles,
        applElmtRunStatusLastErrorMsg,
        applElmtRunStatusLastErrorTime,
        applElmtRunControlSuspend,
        applElmtRunControlReconfigure,
        applElmtRunControlTerminate
    }
    STATUS          current
    DESCRIPTION
        "This group represents extensions to the system application
        MIB."
-- 1.3.6.1.2.1.62.2.1.9 -- ::= { applicationMibGroups 9 }

applicationMibCompliance MODULE-COMPLIANCE
    STATUS          current
    DESCRIPTION
        "The compliance statement for the application MIB."
    MODULE
    MANDATORY-GROUPS {
        applicationMonitorGroup,
        applicationHistoryGroup,
        applicationRunGroup
    }
    OBJECT          applPastChannelControlCollect
        MIN-ACCESS   read-only
        DESCRIPTION
            "This object should be limited to read-only
            access in environments with inadequate
            security."
    OBJECT          applPastChannelControlMaxRows
        MIN-ACCESS   read-only
        DESCRIPTION
            "This object should be limited to read-only
            access in environments with inadequate
            security."
    OBJECT          applPastChannelControlTimeLimit
        MIN-ACCESS   read-only
        DESCRIPTION
            "This object should be limited to read-only
            access in environments with inadequate
            security."
    OBJECT          applElmtRunControlSuspend
        MIN-ACCESS   read-only
        DESCRIPTION
            "This object should be limited to read-only
            access in environments with inadequate
            security."
    OBJECT          applElmtRunControlReconfigure
        MIN-ACCESS   read-only
        DESCRIPTION
            "This object should be limited to read-only
            access in environments with inadequate
            security."
    OBJECT          applElmtRunControlTerminate
        MIN-ACCESS   read-only
        DESCRIPTION
            "This object should be limited to read-only
            access in environments with inadequate
            security."
    VARIATION       applicationTransactGroup
        DESCRIPTION
            "The applicationTransactGroup is required when the
            information stream processed has a transaction
            structure."
    VARIATION       applicationTransHistoryGroup
        DESCRIPTION
            "The applicationTransHistoryGroup must be implemented
            if applicationTransactGroup and applicationHistoryGroup
            are implemented."

```

VARIATION        applicationFastMonitorGroup  
DESCRIPTION  
*"The applicationFastMonitorGroup is mandatory when the applicationMonitorGroup is implemented and its counts group may exceed what can be represented in 32 bits."*

VARIATION        applicationFastTransactGroup  
DESCRIPTION  
*"The applicationFastTransactGroup is mandatory when the applicationTransactGroup is implemented and its counts may exceed what can be represented in 32 bits."*

VARIATION        applicationFastHistoryGroup  
DESCRIPTION  
*"The applicationFastHistoryGroup is mandatory when the applicationHistoryGroup is implemented and its counts may exceed what can be represented in 32 bits."*

VARIATION        applicationFastTransHistoryGroup  
DESCRIPTION  
*"The applicationFastTransHistoryGroup is mandatory when the applicationTransHistoryGroup is implemented and its counts may exceed what can be represented in 32 bits."*

-- 1.3.6.1.2.1.62.2.2 -- ::= { applicationMibConformance 2 }

END

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