Oracle® Tuxedo

SNMP Agent MIB Reference

11*g* Release 1 (11.1.1.2.0)

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Oracle Tuxedo SNMP Agent MIB Reference, 11*g* Release 1 (11.1.1.2.0)

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SNMP MIB

The following sections define an SNMP-compliant MIB and introduce the SNMP MIB for Oracle Tuxedo 10.0:

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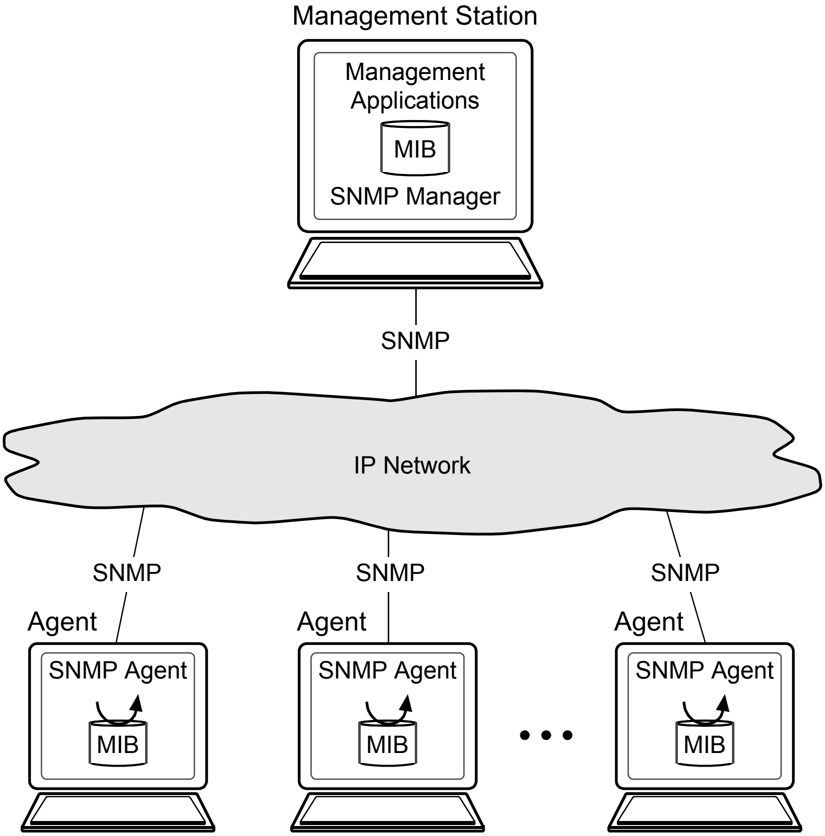
What Is an SNMP-Compliant MIB?

Each management station or agent in an SNMP-managed network maintains a local database of information relevant to network management, known as the management information base

(MIB). The relationship between the management station, the agent, and the MIB is shown in Figure 1-1.

Figure 1-1 SNMP-Managed Configuration



An SNMP-compliant MIB contains definitions and information about the properties of managed resources and the services that the agents support. The manageable features of resources, as defined in an SNMP-compliant MIB, are called *managed objects* or *management variables* (or just *objects* or *variables*).

A management station gets and sets objects in the MIB, and an agent notifies the management station of significant but unsolicited events called *traps*. All message exchanges between the management station and its agents take place using the Simple Network Management Protocol (SNMP).

The MIB at the management station contains network management information extracted from the MIBs of all the managed entities in the network.

MIB Information Structure

The structure of management information (SMI), an SNMP standard described in the NWG RFC 1155, defines the structure of the MIB information and the allowable data types. The SMI identifies how resources within the MIB are represented and named. The philosophy behind SMI is to encourage simplicity and extensibility within the MIB.

The SNMP specification includes a template, known as an Abstract Syntax Notation One (ASN.1) OBJECT TYPE macro, which provides the formal model for defining objects and tables of objects in the MIB. The following keywords are used to define a MIB object:

Syntax

Defines the abstract data structure corresponding to the object type. The SMI purposely restricts the ASN.1 constructs that can be used to promote simplicity.

Access

Defines whether the object value may only be retrieved but not modified (read-only) or whether it may also be modified (read-write).

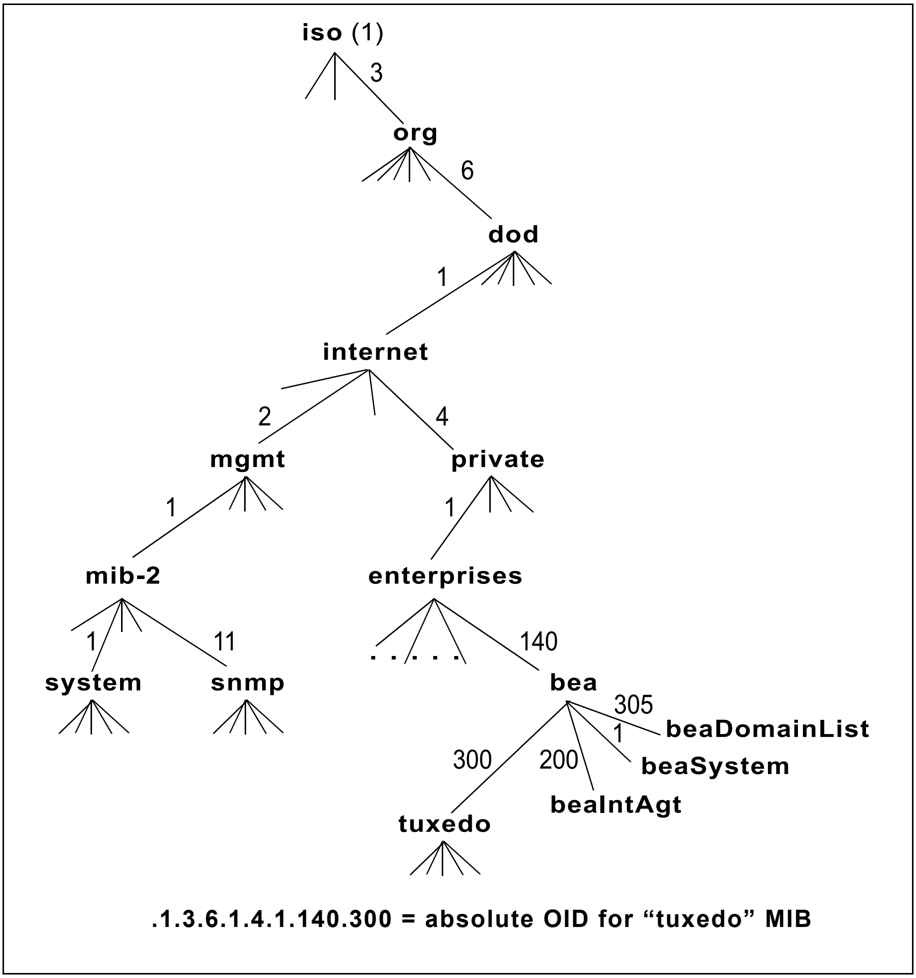
Description

Contains a textual definition of the object type. The definition provides all semantic definitions necessary for interpretation; it typically contains information of the sort that would be communicated in any ASN.1 commentary annotations associated with the object.

MIB Object Identifiers

Each object in the MIB has an *object identifier* (OID), which the management station uses to request the object's value from the agent. An OID is a sequence of integers that uniquely identifies a managed object by defining a path to that object through a tree-like structure called the *OID tree* or registration tree. When an SNMP agent needs to access a specific managed object, it traverses the OID tree to find the object. The MIB object identifier hierarchy and format is shown in Figure 1-2.

Figure 1-2 SNMP MIB Object Identifier Hierarchy and Format



In this hierarchy, each Oracle private MIB object that the Oracle SNMP Agent software manages has a unique object identifier. A prefix of `.1.3.6.1.4.1.140` points to the objects in the Oracle private MIB for the Oracle SNMP Agent software.

Absolute and Relative Object Identifiers

Absolute OIDs specify a path to an attribute from the root of the OID tree. Absolute OID names always begin with a dot and must specify every node of the OID tree from the top-most node to the specific managed object. For example:

```
.1.3.6.1.2.1.1.1
```

Relative OIDs specify a path to the attribute relative to some node in the OID tree. For example, `2.1.1.1` specifies the `sysDescr` object in the `system` group, relative to the Internet node in the OID tree.

Specifying Object Identifiers

In addition to using the “dot-dot” notation, a series of integers separated by dots to describe OIDs, you can also express OIDs by using textual symbols instead of numbers to represent nodes in the path to the object, or by using a combination of both integers and textual symbols. A *symbolic* OID uses mnemonic keywords to specify the managed object. For example:

```
mgmt.mib-2.system.sysContact
```

The following numeric OID uses integers to specify the same managed object:

```
2.1.1.7
```

Note that `2.1.1.7` in this example is a relative OID.

An OID can combine both symbolic and numeric representations of individual nodes of the OID tree; for example:

```
mgmt.mib-2.1.sysContact
```

SNMP MIB for Oracle Tuxedo 10.0

The SNMP MIB for Oracle Tuxedo 10.0 is essentially an SNMP version of the Tuxedo management information base (TMIB) for Oracle Tuxedo 10.0. The TMIB is the standard MIB for administering the components of an Oracle Tuxedo or Oracle WebLogic Enterprise application. For more information about the TMIB, see “Understanding the Differences Between the SNMP MIB and the TMIB” on page 1-11.

The SNMP MIB defines the data types and access permissions for the various managed objects that can be accessed through the Oracle SNMP Agent software. It also defines the event notifications that can be generated by the Oracle SNMP Agent software. As required by the

SNMP standard, the SNMP MIB definitions are written in concise MIB format in accordance with RFC 1212.

Oracle SNMP Agent provides a file named `bea.asn1` for defining the SNMP MIB. For an Oracle Tuxedo 10.0 installation, the `bea.asn1` file resides in the *`tux_prod_dir`*`/udataobj/snmp/etc` directory, where *`tux_prod_dir`* represents the directory in which the Oracle Tuxedo 10.0 distribution is installed.

The `bea.asn1` file for Oracle Tuxedo 10.0 makes the features of the following components recognizable and thus manageable within an SNMP network management framework:

- Tuxedo 10.0 components
- Tuxedo 9.1 components
- Tuxedo 9.0 components
- Tuxedo 8.1 components
- Tuxedo 8.0 components
- Tuxedo 7.1 components
- Tuxedo 6.5 components

You can use Oracle SNMP Agent and the SNMP MIB for Oracle Tuxedo 10.0 to manage Tuxedo 9.1, 9.0, 8.1, 8.0, 7.1, and 6.5 applications. You cannot use Oracle SNMP Agent and the SNMP MIB for Oracle Tuxedo 10.0 to manage WebLogic Enterprise 5.1 or earlier applications.

SNMP MIB Component MIBs

The SNMP MIB defined by the `bea.asn1` file for Oracle Tuxedo 10.0 refers to the entire database of management information at the management station or agent. The SNMP MIB, itself, consists of distinct component MIBs, each of which refers to a specific defined collection of management information that is part of the overall SNMP MIB. The management station uses the component MIBs to administer the particular components of the Oracle Tuxedo system, to administer the agents themselves, and to collect information about the managed resources.

The SNMP MIB for Oracle Tuxedo 10.0 consists of the following component MIBs:

- *Core MIB*—OID prefix: `.1.3.6.1.4.1.140.300` (or `tuxedo`)—Contains the MIB objects for controlling the operation and configuration of a Tuxedo application. This MIB contains the main information groups for Tuxedo applications, including domains, machines, queues, servers, routing, clients, and services. For a detailed description, see "Core MIB" on page 2-1.

- *Domains MIB*—OID prefix: `.1.3.6.1.4.1.140.300` (or `tuxedo`)—Contains the MIB objects for describing the interaction between Tuxedo *domains* (Tuxedo business applications). For a detailed description, see "Domains MIB" on page 3-1.
- *Oracle Domain List MIB*—OID prefix: `.1.3.6.1.4.1.140.305` (or `beaDomainList`)—Contains the MIB objects for identifying and describing all Tuxedo domains currently being monitored on a particular managed node (machine). For a detailed description, see "Oracle Domain List MIB" on page 4-1.
- *CORBA Interface MIB*—OID prefix: `.1.3.6.1.4.1.140.300` (or `tuxedo`)—Contains the MIB objects for managing Tuxedo 8.0 or later CORBA features. For a detailed description, see "CORBA Interface MIB" on page 5-1.
- *Access Control List MIB*—OID prefix: `.1.3.6.1.4.1.140.300` (or `tuxedo`)—Contains the MIB objects for setting and controlling the security options for the Tuxedo application. For a detailed description, see "Access Control List MIB" on page 6-1.
- *Workstation MIB*—OID prefix: `.1.3.6.1.4.1.140.300` (or `tuxedo`)—Contains the MIB objects for specifying information about Tuxedo client workstations including workstation listeners and handlers. For a detailed description, see "Workstation MIB" on page 7-1.
- *Application Queue MIB*—OID prefix: `.1.3.6.1.4.1.140.300` (or `tuxedo`)—Contains the MIB objects for managing access to Tuxedo application queues. The groups include objects for managing queue spaces, queues, messages, and transactions. For a detailed description, see "Application Queue MIB" on page 8-1.
- *EventBroker MIB*—OID prefix: `.1.3.6.1.4.1.140.300` (or `tuxedo`)—Contains the MIB objects for describing current event subscriptions, defining new subscriptions, or invalidating subscriptions. For a detailed description, see "EventBroker MIB" on page 9-1.
- *Traps MIB*—OID prefix: `.1.3.6.1.4.1.140.300` (or `tuxedo`)—Contains the MIB objects for specifying the trap notifications generated by the SNMP agent for Oracle SNMP Agent, and for specifying the objects passed in the variable bindings for the traps. For a detailed description, see "Traps MIB" on page 10-1.
- *Oracle System MIB*—OID prefix: `.1.3.6.1.4.1.140.1` (or `beaSystem`)—Contains the MIB objects for passing the trap notifications generated by the Oracle SNMP Agent Integrator polling rules. As an example, a rule-action might specify that when the value of the polled object at OID `.1.3.6.1.4.1.140.1.0` is greater than 20, send a trap with a specific trap ID of 200; when the object's value becomes less than 20, send a trap with a specific Trap ID of 300. For a description of the Oracle SNMP Agent Integrator polling

feature, see "Using the Oracle SNMP Agent Integrator for Polling" in the *Oracle Tuxedo SNMP Agent Administration Guide*.

- *Oracle Agent Integrator MIB*—OID prefix: `.1.3.6.1.4.1.140.200` (or `beaIntAgt`)—Contains the MIB objects for creating user-defined traps that are generated by the Oracle SNMP Agent Integrator according to user-defined polling rules. You can configure the Oracle SNMP Agent Integrator running on the managed node to perform local polling and generate SNMP trap notifications, or execute a system command when certain conditions are met. Individual rules, stored as MIB objects, can be activated and deactivated by the management station. For a description of polling rules, see "Configuration Files" in the *Oracle Tuxedo SNMP Agent Administration Guide*.

With the exception of *Oracle Domain List*, *Traps*, *Oracle System*, and *Oracle Agent Integrator*, the SNMP MIB component MIBs correspond to the TMIB component MIBs. For more information about the TMIB, see "Understanding the Differences Between the SNMP MIB and the TMIB" on page 1-11.

SNMP MIB Object Naming Conventions

The object names within the SNMP MIB for Oracle Tuxedo 10.0 are prefixed with the letters `tux`. For example, the Core MIB contains a group named `tuxTmachineTable`, and the following objects are included within the `tuxTmachineTable` group:

`tuxTmachinePmid`

Represents a physical machine identifier

`tuxTmachineLmid`

Represents the logical machine identifier

SNMP MIB Object Definitions

The SNMP MIB definitions are written in concise MIB format in accordance with RFC 1212. Thus, the SNMP MIB stores only simple data types: scalars and two-dimensional arrays of scalars, called *tables*. Keywords SYNTAX, ACCESS, and DESCRIPTION as well as other keywords such as STATUS and INDEX are used to define the SNMP MIB managed objects.

To monitor or modify values of managed objects through your management station, you need to know which MIB objects represent the features of the Oracle Tuxedo resources that are relevant to your management goals. You also need to know the data types, default values, and access permissions for these MIB objects.

For table objects, keep the following tips in mind:

- In some cases a read-write table object can only be set during creation of a new row. Where true, this information is noted in the DESCRIPTION section for that object.
- Each row in a table is an instance of the Entry object under that table. The DESCRIPTION section for the Entry object under a table (such as `tuxTmachineTable`) contains information on the columnar values that are minimally necessary for creation of a row—how a new row is created, whether the values pertain only to the local machine, and other pertinent information about the table objects.

SNMP MIB Event Trap Definitions

The `bea.asn1` file defines a full range of Oracle Tuxedo system and application events in accordance with RFC 1215, Trap definitions. These system and application events are transmitted as enterprise-specific traps to the management station. For a list of these traps, see "Traps MIB" on page 10-1.

The following keywords are used to define a trap:

ENTERPRISE

An object identifier that specifies the management enterprise under whose registration authority this trap is defined. All traps generated by the SNMP agent for Oracle SNMP Agent have an enterprise field set to the following OID: `.1.3.6.1.4.1.140.300`. This value is passed in the `enterprise` field of the trap packet (Protocol Data Unit—PDU).

VARIABLES

Defines the ordered sequence of MIB objects that are contained in each instance of the trap type. Each variable is placed, in order, inside the variable-bindings field of the SNMP trap packet (PDU).

DESCRIPTION

Contains a textual definition of the trap type.

Trap ID

Specifies the enterprise-specific trap ID for the trap definition. The trap ID is passed in the specific trap ID field of the trap packet (PDU). The value of the generic trap ID field in traps is always set to 6, indicating an enterprise-specific trap.

Using the SNMP MIB

The management station uses the `bea.asn1` file to set up the SNMP MIB for Oracle SNMP Agent on the management station. The `bea.asn1` file must be imported into the management database of the management station, as described in "Using the Oracle SNMP Agent with a Management Framework" in *Oracle Tuxedo SNMP Agent Administration Guide*.

The SNMP agent for Oracle SNMP Agent uses a file named `mib.txt` to set up its local SNMP MIB on the managed node (machine). The `mib.txt` file, similar to the `bea.asn1` file, provides a textual description of the content of the SNMP MIB. By default, the `mib.txt` file resides in the *`tux_prod_dir`*`/udataobj/snmp/etc` directory, where *`tux_prod_dir`* represents the directory in which the Oracle Tuxedo 10.0 distribution is installed. For more information about using the `mib.txt` file to create the local SNMP MIB on a managed node, see "Oracle SNMP Agent Integrator Commands" in *Oracle SNMP Tuxedo Agent Administration Guide*.

The SNMP agent communicates with the TMIB of the managed Oracle Tuxedo application to get the object values that initially populate the local SNMP MIB. As the management station gets and sets object values in the local SNMP MIB through the SNMP agent, the SNMP agent issues Tuxedo commands to read and write the comparable object values in the local TMIB.

The local SNMP MIB is not persistent, meaning that the SNMP MIB is not written to disk. When the SNMP agent process terminates, its SNMP MIB also terminates.

Querying Non-Existent MIB Objects

If you attempt to retrieve the value for an SNMP MIB object that does not exist, either no value is returned, or one of the following values is returned:

- `-1` if the object is numeric
- A dash (-) if the object data type is `DisplayString`

For example, if an Oracle Tuxedo 8.0 or later application is not installed on the managed node, the CORBA-specific objects included in the SNMP MIB for Oracle Tuxedo 10.0 do not return values when queried.

Updating MIB Objects

Some objects in the SNMP MIB can be set (updated) only under certain states of the Oracle Tuxedo system. If you get an error while trying to set read-write objects in this MIB, examine the Tuxedo `ULOG` file for more information about the error.

The Tuxedo system creates a new `ULOG` file each day on each machine in a Tuxedo domain. For a description of the `ULOG` file, see reference page `userlog(3c)`.

Understanding the Differences Between the SNMP MIB and the TMIB

The primary difference between the SNMP MIB for Oracle SNMP Agent and the Tuxedo MIB (TMIB) is the use of terms. In addition, the SNMP MIB contains a few additional component MIBs.

The TMIB for an Oracle Tuxedo system consists of distinct component MIBs, each used to administer a particular component of the Tuxedo system. These component MIBs are defined in individual reference pages each addressing the MIB for a particular part of the system. For example, reference page `TM_MIB(5)` in *Oracle Tuxedo File Formats, Data Descriptions, MIBs, and System Processes Reference* defines the MIB used to administer the fundamental aspects of an Oracle Tuxedo 10.0 application. TM_MIB is comparable to the SNMP Core MIB.

Instead of referring to *groups* and *managed objects,* as is common in SNMP terminology, the TMIB defines application resources as *classes* and *attributes.* Classes are the administrative class definitions that make up the TMIB. Each class has a set of attributes that identifies individual items in the class. Examples of TMIB classes are:

`T_MACHINE`	The class definition for a machine
`T_SERVICE`	The class definition for Tuxedo services

Attributes for these classes are identified by the prefix `TA_` followed by the attribute name. A few examples for the `T_MACHINE` class are:

`TA_PMID`	Represents a physical machine name
`TA_LMID`	Represents the logical machine name

For more information about the TMIB, refer to *Oracle Tuxedo File Formats, Data Descriptions, MIBs, and System Processes Reference*.

Core MIB

The Core MIB defines the groups through which the fundamental aspects of an application can be configured and managed. These MIB groups contain objects for managing machines, servers, networking, and load balancing.

The Core MIB defines the basic objects that form an Oracle Tuxedo application. It is the main information repository for controlling the operation and configuration of the application. When an application is active, the Core MIB contains groups related to the run-time activity of your application. You can use this information to monitor the behavior of your application.

The Core MIB consists of the following groups.

Group Name	Description
`tuxTBridgeTbl`	Network connection
`tuxTclientTbl`	Client
`tuxTconnTable`	Conversation
`tuxTdevice`	Device
`tuxTdomain`	Domain information
`tuxTgroupTable`	Server group
`tuxTmachineTable`	Machine configuration objects
`tuxTmachineActive`	Run-time machine characteristics

Group Name	Description
`tuxTmsgTable`	Message queue
`tuxTqueueTable`	Server queue
`tuxTroutingTable`	Routing criteria
`tuxTsrvrTbl`	Server configuration objects
`tuxTsrvrTblExt`	Server run-time characteristics
`tuxTsvcTbl`	Service
`tuxTsvcGrp`	Service-group configuration objects
`tuxTlistenTbl`	Tuxedo listeners
`tuxTranTbl`	Transaction
`tuxTulogTable`	Userlog
`tuxTulogCtrl`	Control filter MIB for `tuxTulogTable`
`tuxTnetMapTbl`	Maps logical machine IDs to network groups
`tuxTnetGrpTbl`	Application objects of network groups
`tuxTserverCtxtTbl`	Configuration and run-time objects of individual server dispatch contexts
`beaEventFilters`	Used to define a subset of Tuxedo event notifications

tuxTBridgeTbl

The `tuxTBridgeTbl` group contains objects that represent run-time characteristics pertaining to connectivity between logical machines that make up an application. The object values represent connection status and statistics.

Objects in this table are accessible either through a Tuxedo SNMP agent installed on the local machine or using the `-c` option on the master machine. The index into the table consists of `tuxTBridgeLmid` and `tuxTBridgeNetworkGrpNo`. In Tuxedo 6.4, `SET` requests are allowed only for the `DEFAULTNET` network group, so all SET requests should use `0` for `tuxTBridgeNetworkGrpNo` in the SNMP index.

Object Name	Object ID
`tuxTBridgeLmid`	.1.3.6.1.4.1.140.300.16.1.1.1
`tuxTBridgeState`	.1.3.6.1.4.1.140.300.16.1.1.2
`tuxTBridgeCurTime`	.1.3.6.1.4.1.140.300.16.1.1.3
`tuxTBridgeConTime`	.1.3.6.1.4.1.140.300.16.1.1.4
`tuxTBridgeSuspTime`	.1.3.6.1.4.1.140.300.16.1.1.5
`tuxTBridgeRcvdByte`	.1.3.6.1.4.1.140.300.16.1.1.6
`tuxTBridgeSentByte`	.1.3.6.1.4.1.140.300.16.1.1.7
`tuxTBridgeRcvdNum`	.1.3.6.1.4.1.140.300.16.1.1.8
`tuxTBridgeSentNum`	.1.3.6.1.4.1.140.300.16.1.1.9
`tuxTBridgeFlowCnt`	.1.3.6.1.4.1.140.300.16.1.1.10
`tuxTBridgeCurEncryptBits`	.1.3.6.1.4.1.140.300.16.1.1.11
`tuxTBridgeNetworkGrpNo`	.1.3.6.1.4.1.140.300.16.1.1.12
`tuxTBridgeNetworkGrpName`	.1.3.6.1.4.1.140.300.16.1.1.13

tuxTBridgeLmid

Syntax

`DisplayString` (`SIZE`(*`1..61`*))

Access

read-only

Description

`DisplayString` is of the format: *`LMID1`*`[,`*`LMID2`*`]`

`LMID1`

Is the logical machine identifier for network connection and is in the range from one to 61 characters.

`LMID2`

Is the destination logical machine identifier for network connection and is in the range from one to 61 characters.

tuxTBridgeState

Syntax

`INTEGER {active(1), inactive(2), suspended(3), pending(4)}`

Access

read-write

Description

The values for `GET` and `SET` operations are as follows:

`GET:{active(1)|inactive(2)|suspended(3)|pending(4)}`

A `GET` operation retrieves run-time information for the selected `tuxTBridgeTbl` instance(s). A `tuxTBridgeLmid` object value with only one logical machine identifier matches all active connections from *`LMID1`* to other machines in the application. In this case, each retrieved record contains an expanded `tuxTBridgeLmid` object value with the destination LMID filled in. The following states indicate the meaning of a `tuxTBridgeState` returned in response to a `GET` request. States not listed are not returned.

`active(1)`

The connection is established and active.

`inactive(2)`

The connection is inactive. This state is only returned when status is requested on a particular connection, that is, both LMIDs are specified in the `tuxTBridgeLmid` object and the source logical machine is reachable.

`suspended(3)`

An established connection has been terminated due to an error condition, and reconnection has been suspended for at least the amount of time indicated in the `tuxTBridgeSuspTime` object value.

`pending(4)`

An asynchronous connection has been requested but has not yet completed. The final outcome of the connection request has not been determined.

`SET: {active(1)|inactive(2)|suspended(3)|pending(4)}`

A `SET` operation updates run-time information for the selected `tuxTBridgeTbl` object. The following states indicate the meaning of a `tuxTBridgeState` set in a `SET` request. States not listed cannot be set.

`active(1)`

Activate the `tuxTBridgeTbl` instance by establishing an asynchronous connection between the indicated logical machines. This operation fails if only one machine is specified, if either of the machines is not active, or if the source machine is not reachable. When in the `pending(4)` state, the success or failure of the connection has not yet been determined. The BRIDGE can continue to process other events and data while the connection is outstanding. This state change is allowed in the `inactive(2)` and `suspended(3)` states. Successful return leaves the instance in the `active(1)` or `pending(4)` state.

`inactive(2)`

Deactivate the `tuxTBridgeTbl` object by closing the connection between the indicated logical machines. This operation fails if only one logical machine is specified or if the two machines are not connected. State change allowed only when in the `active(1)` state. Successful return leaves the object in the `inactive(2)` state.

`suspended(3)`

Suspend the `tuxTBridgeTbl` object by closing the connection between the indicated logical machines and by setting the `tuxTBridgeSuspTime` parameter as indicated. State change allowed only when in the `active(1)` state. Successful return leaves the object in the `suspended(3)` state.

Note: Since the statistics reported are from the source logical machine, resetting those statistics causes them to be out of sync with the statistics reported by the destination logical machine for the same connection.

`pending(4)`

Activate the `tuxTBridgeTbl` instance by establishing an asynchronous connection between the indicated logical machines. This operation fails if only one logical machine is specified, if either of the two machines is inactive, or if the source logical machine is not reachable. When in the `pending(4)` state, the success or failure of the connection request has not yet been determined. However, the BRIDGE can continue to process other events and data while the connection request is outstanding. State change allowed in `inactive(2)` and `suspended(3)` states. Successful return leaves the instance in the `pending(4)` state.

tuxTBridgeCurTime

Syntax

`INTEGER`

Access

read-only

Description

Current time, in seconds, since 00:00:00 UTC, January 1, 1970, as returned by the `time`(2) system call on `tuxTBridgeLmid`. This object can be used to compute elapsed time from the following "tuxTBridge" object values.

tuxTBridgeConTime

Syntax

`INTEGER`

Access

read-only

Description

Time, in seconds, that this connection has been active.

tuxTBridgeSuspTime

Syntax

`INTEGER`

Access

read-write

Description

Time, in seconds, remaining in the suspension of this connection. After this amount of time, the connection automatically changes to a `tuxTBridgeState` of `inactive(2)` and can be activated by normal application traffic.

tuxTBridgeRcvdByte

Syntax

`INTEGER`

Access

read-only

Description

Number of bytes sent from the destination logical machine to the source logical machine.

tuxTBridgeSentByte

Syntax

`INTEGER`

Access

read-only

Description

Number of bytes sent from the source logical machine to the destination logical machine.

tuxTBridgeRcvdNum

Syntax

`INTEGER`

Access

read-only

Description

Number of messages sent from the destination logical machine to the source logical machine.

tuxTBridgeSentNum

Syntax

`INTEGER`

Access

read-only

Description

Number of messages sent from the source logical machine to the destination logical machine.

tuxTBridgeFlowCnt

Syntax

`INTEGER`

Access

read-only

Description

Number of times flow control has been encountered over this connection.

tuxTBridgeCurEncryptBits

Syntax

`INTEGER {none(1), 40-bit(2), 128-bit(3), not-available(4)}`

Access

read-only

Description

The current level of encryption for this link. The `tuxTBridgeCurEncryptBits` value is negotiated between the machines when the link is established. The number specifies the encryption key length (in bits).

tuxTBridgeNetworkGrpNo

Syntax

`INTEGER`

Access

read-only

Description

Logical network group number. When both the source and destination `tuxTBridgeLmid` machine identifiers are in the same network group, `tuxTBridgeTbl` presents all instances of related fields per network group.

tuxTBridgeNetworkGrpName

Syntax

DisplayString

Access

read-only

Description

Logical network group name.

tuxTclientTbl

The `tuxTclientTbl` group contains objects that represent run-time characteristics of active clients within an application. The object values identify and track the activity of clients within a running application. Objects in this table are only accessible through a Tuxedo SNMP agent installed on the local machine.

Object Name	**Object ID**
`tuxTclientState`	.1.3.6.1.4.1.140.300.17.1.1.1
`tuxTclientBirthTime`	.1.3.6.1.4.1.140.300.17.1.1.2

Object Name	Object ID
`tuxTclientMachineId`	.1.3.6.1.4.1.140.300.17.1.1.3
`tuxTclientReg`	.1.3.6.1.4.1.140.300.17.1.1.4
`tuxTclientClntName`	.1.3.6.1.4.1.140.300.17.1.1.5
`tuxTclientIdleTime`	.1.3.6.1.4.1.140.300.17.1.1.6
`tuxTclientPid`	.1.3.6.1.4.1.140.300.17.1.1.7
`tuxTclientSrvGrp`	.1.3.6.1.4.1.140.300.17.1.1.8
`tuxTclientUsrName`	.1.3.6.1.4.1.140.300.17.1.1.9
`tuxTclientWsc`	.1.3.6.1.4.1.140.300.17.1.1.10
`tuxTclientWsh`	.1.3.6.1.4.1.140.300.17.1.1.11
`tuxTclientWshClientId`	.1.3.6.1.4.1.140.300.17.1.1.12
`tuxTclientRelease`	.1.3.6.1.4.1.140.300.17.1.1.13
`tuxTclientWsProto`	.1.3.6.1.4.1.140.300.17.1.1.14
`tuxTclientNumConv`	.1.3.6.1.4.1.140.300.17.1.1.15
`tuxTclientNumDeque`	.1.3.6.1.4.1.140.300.17.1.1.16
`tuxTclientNumEnque`	.1.3.6.1.4.1.140.300.17.1.1.17
`tuxTclientNumPost`	.1.3.6.1.4.1.140.300.17.1.1.18
`tuxTclientNumReq`	.1.3.6.1.4.1.140.300.17.1.1.19
`tuxTclientNumSubscribe`	.1.3.6.1.4.1.140.300.17.1.1.20
`tuxTclientNumTran`	.1.3.6.1.4.1.140.300.17.1.1.21
`tuxTclientNumTranAbt`	.1.3.6.1.4.1.140.300.17.1.1.22
`tuxTclientNumTranCmt`	.1.3.6.1.4.1.140.300.17.1.1.23
`tuxTclientCmtRet`	.1.3.6.1.4.1.140.300.17.1.1.24
`tuxTclientCurConv`	.1.3.6.1.4.1.140.300.17.1.1.26

Object Name	Object ID
`tuxTclientCurReq`	.1.3.6.1.4.1.140.300.17.1.1.27
`tuxTclientCurTime`	.1.3.6.1.4.1.140.300.17.1.1.28
`tuxTclientLastGrp`	.1.3.6.1.4.1.140.300.17.1.1.29
`tuxTclientNaddr`	.1.3.6.1.4.1.140.300.17.1.1.30
`tuxTclientNotify`	.1.3.6.1.4.1.140.300.17.1.1.31
`tuxTclientNumUnSol`	.1.3.6.1.4.1.140.300.17.1.1.32
`tuxTclientRpid`	.1.3.6.1.4.1.140.300.17.1.1.33
`tuxTclientTimeLeft`	.1.3.6.1.4.1.140.300.17.1.1.34
`tuxTclientTimeStart`	.1.3.6.1.4.1.140.300.17.1.1.36
`tuxTclientTranLev`	.1.3.6.1.4.1.140.300.17.1.1.37
`tuxTclientId`	.1.3.6.1.4.1.140.300.17.1.1.38
`tuxTclientContextID`	.1.3.6.1.4.1.140.300.17.1.1.50

tuxTclientState

Syntax

`INTEGER { active(1), suspended(2), dead(3) }`

Access

read-write

Description

The values for `GET` and `SET` operations are as follows:

`GET: {active(1)|suspended(2)|dead(3)}`

A `GET` operation retrieves run-time information for the selected `tuxTclientTbl` instance(s). Note that client information is kept in local bulletin board tables only. Therefore, for maximum performance, inquiries on client status should be restricted, using key fields as much as possible. The following states indicate the meaning of a `tuxTclientState` returned in response to a `GET` request. States not listed are not returned.

`active(1)`

`tuxTclientTbl` instance active. The `active(1)` state is not an indication of whether the client is idle or busy. A non-0 value retrieved for either the `tuxTclientCurConv` object or the `tuxTclientCurReq` object indicates a busy client.

`suspended(2)`

`tuxTclientTbl` instance active and suspended from making further service requests (`tpcall`(3) or `tpacall`(3)) and from initiating further conversations (`tpconnect`(3)). See `SET suspended(2)` below for details.

`dead(3)`

`tuxTclientTbl` instance identified as active in the bulletin board but currently not running due to an abnormal death. This state exists only until the BBL local to the client notices the death and takes action to clean up the client's bulletin board resources.

`SET: {active(1)|suspended(2)|dead(3)}`

A `SET` operation updates run-time information for the selected `tuxTclientTbl` object. The following states indicate the meaning of a `tuxTclientState` set in a `SET` request. States not listed cannot be set.

`active(1)`

Activate a `suspended(2)` `tuxTclientTbl` instance. State change allowed only when in the `suspended(2)` state. Successful return leaves the object in the `active(1)` state.

`suspended(2)`

Suspend the `tuxTclientTbl` instance from making service requests (`tpcall`(3) or `tpacall`(3)), initiating conversations (`tpconnect`(3)), beginning transactions (`tpbegin`(3)), and enqueuing new requests (`tpenqueue`(3)). Clients within a transaction are permitted to make these calls until they abort or commit the current transaction, at which time the clients become suspended. Invocations of these routines result in a TPESYSTEM error return and a system log message being generated that indicates the situation. State change is allowed only when the object is in the `active(1)` state. Successful return leaves the object in the `suspended(2)` state.

`dead(3)`

Abortively deactivate the `tuxTclientTbl` instance. State change is allowed only when the object is in the `active(1)` or `suspended(2)` state. The recommended method for deactivating clients is to first suspend them, and then to abortively deactivate them by setting the state to `dead(3)`. Successful return leaves the object in the `dead(3)` state.

Note: Workstation handlers (`tuxTclientWsh == yes(1)`) cannot be set to a state of `dead(3)`. The system might not be able to kill the client, due to platform or signaling restrictions. In this case, a native client is abortively terminated at its next access to ATMI, and a workstation client's connection to a WSH is preemptively torn down.

tuxTclientBirthTime

Syntax

`INTEGER`

Access

read-only

Description

Client identifier. The data in this field should not be interpreted directly by the end user except for equality comparison.

tuxTclientMachineId

Syntax

`INTEGER`

Access

read-only

Description

Client identifier. The data in this field should not be interpreted directly by the end user except for equality comparison.

tuxTclientReg

Syntax

`INTEGER`

Access

read-only

Description

Client identifier. The data in this field should not be interpreted directly by the end user except for equality comparison.

tuxTclientClntName

Syntax

`DisplayString` (`SIZE(0..30)`)

Access

read-only

Description

Client name associated with client at `tpinit`(3) time through the cltname element of the TPINIT structure.

tuxTclientIdleTime

Syntax

`INTEGER`

Access

read-only

Description

Approximate amount of time, in seconds, since this client last interacted with the system through an ATMI call. This value is accurate to within `tuxTdomainScanUnit` (see the `tuxTdomain` group) seconds. When specified as a key field, a positive value indicates that all clients with idle times of at least the indicated value match, a negative value indicates that all clients with no more than the indicated value match, and a 0 value matches all clients.

tuxTclientPid

Syntax

`INTEGER`

Access

read-only

Description

Process identifier of client. Note that for workstation clients, this identifier indicates the workstation handler through which the workstation client is connected. A negative number can be specified on a `GET` operation for the purpose of retrieving client information for the calling process. If the calling process is not a client, then an error is returned.

tuxTclientSrvGrp

Syntax

`DisplayString` (`SIZE`(*`0..30`*))

Access

read-only

Description

Server group with which the client is associated. This information is set through the grpname element of the TPINIT structure at `tpinit`(3) time.

tuxTclientUsrName

Syntax

`DisplayString` (`SIZE`(*`0..30`*))

Access

read-only

Description

User name associated with client at `tpinit`(3) time through the usrname element of the TPINIT structure.

tuxTclientWsc

Syntax

`INTEGER { yes(1), no(2) }`

Access

read-only

Description

If this object is set to `yes(1)`, the indicated client is logged in to the application from a remote workstation.

tuxTclientWsh

Syntax

`INTEGER { yes(1), no(2) }`

Access

read-only

Description

Workstation handler. If this object is set to `yes(1)`, the indicated client is a workstation handler process.

tuxTclientWshClientId

Syntax

`DisplayString` (`SIZE`(*`1..78`*))

Access

read-only

Description

Client identifier for the associated workstation handler (WSH) if this client is a workstation client (`tuxTclientWsc == yes(1)`); otherwise, the `tuxTclientWshClientId` value is returned as a 0-length string.

tuxTclientRelease

Syntax

`INTEGER`

Access

read-only

Description

The Tuxedo system major protocol release number for the machine where the client is running. This value can be different from the `tuxTmachineSWrelease` for the same machine. Note that for /WS clients (`tuxTclientWsc == yes(1)`), this value can be different from the major release associated with the application administered machine through which the /WS client accesses the application.

tuxTclientWsProto

Syntax

`INTEGER`

Access

read-only

Description

The Tuxedo system /WS protocol version number for a workstation client. This value is changed with each update to the /WS protocol. A value of 0 is returned for this object when it is associated with non-/WS clients (`tuxTclientWsc == no(2)`).

tuxTclientNumConv

Syntax

`INTEGER`

Access

read-only

Description

Number of conversations initiated by this client through `tpconnect`(3).

tuxTclientNumDeque

Syntax

`INTEGER`

Access

read-only

Description

Number of dequeue operations initiated by this client through `tpdequeue`(3).

tuxTclientNumEnque

Syntax

`INTEGER`

Access

read-only

Description

Number of enqueue operations initiated by this client through `tpenqueue`(3).

tuxTclientNumPost

Syntax

`INTEGER`

Access

read-only

Description

Number of postings initiated by this client through `tppost`(3).

tuxTclientNumReq

Syntax

`INTEGER`

Access

read-only

Description

Number of requests made by this client through `tpcall`(3) or `tpacall`(3).

tuxTclientNumSubscribe

Syntax

`INTEGER`

Access

read-only

Description

Number of subscriptions made by this client through `tpsubscribe`(3).

tuxTclientNumTran

Syntax

`INTEGER`

Access

read-only

Description

Number of transactions begun by this client.

tuxTclientNumTranAbt

Syntax

`INTEGER`

Access

read-only

Description

Number of transactions aborted by this client.

tuxTclientNumTranCmt

Syntax

`INTEGER`

Access

read-only

Description

Number of transactions committed by this client.

tuxTclientCmtRet

Syntax

`INTEGER { complete(1) | logged(2) }`

Access

read-only

Description

Setting of the TP_COMMIT_CONTROL characteristic for this client. See the description of the Tuxedo system ATMI function `tpscmt`(3) for details on this characteristic.

tuxTclientCurConv

Syntax

`INTEGER`

Access

read-only

Description

Number of conversations initiated by this client through `tpconnect`(3) that are still active.

tuxTclientCurReq

Syntax

`INTEGER`

Access

read-only

Description

Number of requests initiated by this client through `tpcall`(3) or `tpacall`(3) that are still active.

tuxTclientCurTime

Syntax

`INTEGER`

Access

read-only

Description

Current time, in seconds, since 00:00:00 UTC, January 1, 1970, as returned by the `time`(2) system call on the local host. This object can be used to compute elapsed time from the `tuxTclientTimeStart` object value.

tuxTclientLastGrp

Syntax

`INTEGER`

Access

read-only

Description

Server group number of the last service request made or conversation initiated from this client.

tuxTclientNaddr

Syntax

`DisplayString` (`SIZE`(*`1..256`*)) (up to 78 bytes for Oracle Tuxedo 8.0 or earlier)

Access

read-only

Description

For workstation clients, this object indicates the network address of the client. Network addresses with unprintable characters are converted to the "0x..." network address format as described in the `tuxTmachineNaddr` object. Non-workstation clients have a 0-length string associated with them for the `tuxTclientNaddr` value.

Note: The ability of the system to provide this information is determined by the transport provider in use. In some cases, workstation clients cannot have addresses associated with them if the provider does not make this information available.

tuxTclientNotify

Syntax

`INTEGER { dipin(1) | signal(2) | ignore(3) }`

Access

read-only

Description

Setting of the notification characteristic for this client. See the `tuxTdomain` group description of this object for more details.

tuxTclientNumUnSol

Syntax

`INTEGER`

Access

read-only

Description

Number of unsolicited messages queued for this client that are awaiting processing.

tuxTclientRpid

Syntax

`INTEGER`

Access

read-only

Description

UNIX system message queue identifier for the client’s reply queue.

Note: This object is a UNIX-system-specific object value that might not be returned if the platform on which the application is being run is not UNIX-based.

tuxTclientTimeLeft

Syntax

`INTEGER`

Access

read-only

Description

Time left, in seconds, for this client to receive the reply for which it is currently waiting before it times out. This timeout can be a transactional timeout or a blocking timeout.

tuxTclientTimeStart

Syntax

`INTEGER`

Access

read-only

Description

Time, in seconds, since 00:00:00 UTC, January 1, 1970, as returned by the `time`(2) system call on local host, since the client joined the application.

tuxTclientTranLev

Syntax

`INTEGER`

Access

read-only

Description

Current transaction level for this client. 0 indicates that the client is not currently involved in a transaction.

tuxTclientId

Syntax

`DisplayString` (`SIZE`(*`1..78`*))

Access

read-only

Description

Client Identifier.

tuxTclientContextID

Syntax

`INTEGER (-2..29999)`

Access

read-only

Status

mandatory

Description

Identifier for this particular application association.

tuxTconnTable

The `tuxTconnTable` group contains objects that represent run-time characteristics of active conversations within an application. Objects in this table are only accessible through a Tuxedo SNMP agent installed on the local machine. All objects in this MIB group are local objects, that is, values for these objects correspond to the local host only where the Tuxedo agent is running. Thus, the user needs to run an instance of the Tuxedo agent on every node for which these values are of interest. The index into this table is `tuxTconnSerNo`.

Object Name	**Object ID**
`tuxTconnSerNo`	.1.3.6.1.4.1.140.300.18.1.1.1
`tuxTconnState`	.1.3.6.1.4.1.140.300.18.1.1.2
`tuxTconnSvcName`	.1.3.6.1.4.1.140.300.18.1.1.3
`tuxTconnClientId`	.1.3.6.1.4.1.140.300.18.1.1.4
`tuxTconnOgrpNo`	.1.3.6.1.4.1.140.300.18.1.1.5
`tuxTconnOlmid`	.1.3.6.1.4.1.140.300.18.1.1.6

Object Name	Object ID
`tuxTconnOpid`	.1.3.6.1.4.1.140.300.18.1.1.7
`tuxTconnOsndcnt`	.1.3.6.1.4.1.140.300.18.1.1.8
`tuxTconnOsrvId`	.1.3.6.1.4.1.140.300.18.1.1.9
`tuxTconnSgrpNo`	.1.3.6.1.4.1.140.300.18.1.1.10
`tuxTconnSlmid`	.1.3.6.1.4.1.140.300.18.1.1.11
`tuxTconnSpid`	.1.3.6.1.4.1.140.300.18.1.1.12
`tuxTconnSsndcnt`	.1.3.6.1.4.1.140.300.18.1.1.13
`tuxTconnSsrvId`	.1.3.6.1.4.1.140.300.18.1.1.14

tuxTconnSerNo

Syntax

`INTEGER`

Access

read-only

Description

A running number as an index for `tuxTconnTable`.

tuxTconnState

Syntax

`INTEGER { active(1) }`

Access

read-only

Description

The values for `GET` and `SET` operations are as follows:

`GET:`

A `GET` operation retrieves run-time information for the selected `tuxTconnTable` instance(s). The following state indicates the meaning of a `tuxTconnState` returned in response to a `GET` request. States not listed are not returned.

`active(1)`

The `active(1)` state returned reflects one or both sides of an active conversation within the application.

`SET`**:**

`SET` operations are not permitted for this group.

tuxTconnSvcName

Syntax

`DisplayString` (`SIZE`(*`1..127`*))

Access

read-only

Description

Service name of the conversational service invoked by the originator and processed by the subordinate.

tuxTconnClientId

Syntax

`DisplayString` (`SIZE`(*`1..78`*))

Access

read-only

Description

Client identifier. The data in this field should not be interpreted directly by the end user except for equality comparison.

tuxTconnOgrpNo

Syntax

`INTEGER (1..30001)`

Access

read-only

Description

Server group number for the originator of the conversation. If the originator is a client, then 30,000 is returned as the value for this object.

tuxTconnOlmid

Syntax

`DisplayString` (`SIZE`(`1..30`))

Access

read-only

Description

Logical machine identifier that indicates where the originator is running, or (in the case of /WS clients) is accessing the application .

tuxTconnOpid

Syntax

`INTEGER`

Access

read-only

Description

Process identifier for the originator of the conversation.

tuxTconnOsndcnt

Syntax

`INTEGER`

Access

read-only

Description

Number of `tpsend`(3) calls made by the originator.

tuxTconnOsrvId

Syntax

`INTEGER (1..30001)`

Access

read-only

Description

Server identifier for the originator of the conversation.

tuxTconnSgrpNo

Syntax

`INTEGER (1..30001)`

Access

read-only

Description

Server group number for the subordinate of the conversation. If the originator is a client, then 30,000 is returned as the value for this object.

tuxTconnSlmid

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-only

Description

Logical machine identifier that indicates where the subordinate is running or, (in the case of /WS clients) is accessing the application.

tuxTconnSpid

Syntax

`INTEGER`

Access

read-only

Description

Process identifier for the subordinate in the conversation.

tuxTconnSsndcnt

Syntax

`INTEGER`

Access

read-only

Description

Number of `tpsend`(3) calls made by the subordinate.

tuxTconnSsrvId

Syntax

`INTEGER (1..30001)`

Access

read-only

Description

Server identifier for the subordinate in the conversation.

tuxTdevice

The `tuxTdevice` group contains the following object and group (table).

Object Name	Object ID
`tuxTwhichCfgDev`	.1.3.6.1.4.1.140.300.19.2
`tuxTdeviceTbl`	.1.3.6.1.4.1.140.300.19.1

tuxTwhichCfgDev

Syntax

`DisplayString` (`SIZE`(*`2..256`*)) (up to 64 bytes for Oracle Tuxedo 8.0 or earlier)

Access

read-write

Description

The value of this object determines the device for which `tuxTdeviceTbl` returns configuration and run-time information.

The default value of this object is the `TUXCONFIG` file for the current domain.

tuxTdeviceTbl

The `tuxTdeviceTbl` group contains objects that represent configuration and run-time objects of raw disk slices or UNIX system files being used to store Tuxedo system device lists. This group allows for the creation and deletion of device list entries within a raw disk slice or UNIX system file. Objects in this table are only accessible through a Tuxedo SNMP agent installed on the local machine. To create a new row in this table, the user needs to send a SET request, with at least a value for `tuxTdevSize`. The index into this table is `tuxTdevCfgDev` and `tuxTdevIndex`.

Object Name	**Object ID**
`tuxTdevLmid`	.1.3.6.1.4.1.140.300.19.1.1.1
`tuxTdevCfgDev`	.1.3.6.1.4.1.140.300.19.1.1.2
`tuxTdeviceName`	.1.3.6.1.4.1.140.300.19.1.1.3
`tuxTdevOffset`	.1.3.6.1.4.1.140.300.19.1.1.4
`tuxTdevSize`	.1.3.6.1.4.1.140.300.19.1.1.5
`tuxTdevIndex`	.1.3.6.1.4.1.140.300.19.1.1.6
`tuxTdevState`	.1.3.6.1.4.1.140.300.19.1.1.7

tuxTdevLmid

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-write

Description

Logical machine identifier where the device is located. Note that this object can be used as a key field in both unbooted and booted applications as long as they are already configured (that is, at least one `tuxTmachineTable` instance exists). It is required as a key field on `SET` operations when they are accessing a booted application. If specified when accessing the `tuxTdeviceTbl` table in an unconfigured application, this object is ignored.

Note: This object can be set only during row creation.

tuxTdevCfgDev

Syntax

`DisplayString` (`SIZE`(*`2..64`*))

Access

read-write

Description

Absolute pathname of the file or device where the Tuxedo system filesystem is stored or is to be stored.

Note: This object can be set only during row creation.

tuxTdeviceName

Syntax

`DisplayString` (`SIZE`(*`2..64`*))

Access

read-write

Description

Absolute pathname of the device list entry.

Note: This object can be set only during row creation.

tuxTdevOffset

Syntax

`INTEGER`

Access

read-write

Description

The offset, in blocks, at which space on this `tuxTdevice` begins for use within the Tuxedo system VTOC specified by `tuxTdevCfgDev`.

Note: This object can be set only during row creation.

tuxTdevSize

Syntax

`INTEGER`

Access

read-write

Description

The size in pages of the disk area to be used for the device list entry.

Note: This object can be set only in conjunction with row creation.

Note: This object can be set only during row creation.

tuxTdevIndex

Syntax

`INTEGER`

Access

read-only

Description

Device index for `tuxTdevice` within the device list addressed by `tuxTdevCfgDev`. The `tuxTdevIndex` value is used for identification purposes only in getting and setting object values that relate to particular devices within a Tuxedo system filesystem.

tuxTdevState

Syntax

`INTEGER { valid(1) | invalid(2) | re-init(3) }`

Access

read-write

Description

The values for `GET` and `SET` operations are as follows:

`GET: {valid(1)}`
A `GET` operation retrieves run-time information for the selected `tuxTdeviceTbl` instance(s). The following state indicates the meaning of a `tuxTdevState` returned in response to a `GET` request. States not listed are not returned.

`valid(1)`
The Tuxedo system filesystem indicated by `tuxTdevCfgDev` exists and contains a valid device list. `tuxTdevice` is a valid device within that filesystem with the device index `tuxTdevIndex`.

`SET: {invalid(2)|re-init(3)}`
A `SET` operation updates information for the selected `tuxTdeviceTbl` instance or adds the indicated object. The following states indicate the meaning of a `tuxTdevState` set in a `SET` request. States not listed cannot be set.

`invalid(2)`
Delete `tuxTdeviceTbl` instance for application. State change is allowed only when the object is in the `valid(1)` state. Successful return leaves the object in the `invalid(2)` state. Note that `tuxTdevIndex 0` is special and must be deleted last.

`re-init(3)`
Re-initializes a valid device.

tuxTdomain

The `tuxTdomain` group contains objects that represent global application characteristics for the domain to which the Tuxedo SNMP Agent is currently connected. The object values serve to identify, customize, size, secure, and tune a Tuxedo application. Many of the object values represented here serve as application defaults for other groups represented in this MIB.

There is exactly one instance of the `tuxTdomain` group for each application.

Object Name	Object ID
`tuxTdomainKey`	.1.3.6.1.4.1.140.300.3.1
`tuxTdomainMaster`	.1.3.6.1.4.1.140.300.3.2
`tuxTdomainModel`	.1.3.6.1.4.1.140.300.3.3
`tuxTdomainState`	.1.3.6.1.4.1.140.300.3.4
`tuxTdomainID`	.1.3.6.1.4.1.140.300.3.5
`tuxTdomainUID`	.1.3.6.1.4.1.140.300.3.7
`tuxTdomainGID`	.1.3.6.1.4.1.140.300.3.8
`tuxTdomainPerm`	.1.3.6.1.4.1.140.300.3.9
`tuxTdomainMask`	.1.3.6.1.4.1.140.300.3.10
`tuxTdomainMaxAccessers`	.1.3.6.1.4.1.140.300.3.11
`tuxTdomainMaxConv`	.1.3.6.1.4.1.140.300.3.12
`tuxTdomainMaxGTT`	.1.3.6.1.4.1.140.300.3.13
`tuxTdomainMaxBufsType`	.1.3.6.1.4.1.140.300.3.14
`tuxTdomainMaxBufType`	.1.3.6.1.4.1.140.300.3.15
`tuxTdomainMaxDRT`	.1.3.6.1.4.1.140.300.3.16
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`tuxTdomainMaxMachines`	.1.3.6.1.4.1.140.300.3.18
`tuxTdomainMaxQueues`	.1.3.6.1.4.1.140.300.3.19
`tuxTdomainMaxRFT`	.1.3.6.1.4.1.140.300.3.20
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`tuxTdomainMaxServers`	.1.3.6.1.4.1.140.300.3.22
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`tuxTdomainSecurity`	.1.3.6.1.4.1.140.300.3.31
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`tuxTdomainBBLQuery`	.1.3.6.1.4.1.140.300.3.35
`tuxTdomainBlockTime`	.1.3.6.1.4.1.140.300.3.36
`tuxTdomainDBBLWait`	.1.3.6.1.4.1.140.300.3.37
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`tuxTdomainCurDRT`	.1.3.6.1.4.1.140.300.3.39
`tuxTdomainCurGroups`	.1.3.6.1.4.1.140.300.3.40
`tuxTdomainCurMachines`	.1.3.6.1.4.1.140.300.3.41
`tuxTdomainCurQueues`	.1.3.6.1.4.1.140.300.3.42
`tuxTdomainCurRFT`	.1.3.6.1.4.1.140.300.3.43
`tuxTdomainCurRTdata`	.1.3.6.1.4.1.140.300.3.44
`tuxTdomainCurServers`	.1.3.6.1.4.1.140.300.3.45
`tuxTdomainCurServices`	.1.3.6.1.4.1.140.300.3.46
`tuxTdomainCursType`	.1.3.6.1.4.1.140.300.3.47

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`tuxTdomainHwDRT`	.1.3.6.1.4.1.140.300.3.49
`tuxTdomainHwGroups`	.1.3.6.1.4.1.140.300.3.50
`tuxTdomainHwMachines`	.1.3.6.1.4.1.140.300.3.51
`tuxTdomainHwQueues`	.1.3.6.1.4.1.140.300.3.52
`tuxTdomainHwRFT`	.1.3.6.1.4.1.140.300.3.53
`tuxTdomainHwRTdata`	.1.3.6.1.4.1.140.300.3.54
`tuxTdomainHwServers`	.1.3.6.1.4.1.140.300.3.55
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tuxTdomainKey

Syntax

`INTEGER (32769..262143)`

Access

read-write

Description

Numeric key for the well-known address in a Tuxedo system bulletin board. In a single processor environment, this key “names” the bulletin board. In a multiple processor or LAN environment, this key names the message queue of the DBBL. In addition, this key is used as a basis for deriving the names of resources other than the well-known address, such as the names for bulletin boards throughout the application.

tuxTdomainMaster

Syntax

`DisplayString` (`SIZE` (*`1..30`*))

Access

read-write

Description

`DisplayString` is in format: *`LMID1`*`[,`*`LMID2`*`]`

`LMID1`

Is the master logical machine identifier and is in the range from one to thirty characters.

`LMID2`

Is the backup logical machine identifier and is in the range from one to thirty characters.

The master identifier (*`LMID1`*) must correspond to the local machine for inactive applications. `single-machine(1)` mode applications (see `tuxTdomainModel` below) can set only the master logical machine identifier. Modifications to the `tuxTdomainMaster` value in an active `multi-machine(2)` application (see `tuxTdomainModel` below) have the following semantics.

Assuming current active master LMID A, current backup master LMID B, and secondary LMIDs C, D, ..., the following scenarios define the semantics of permitted changes to the `tuxTdomainMaster` object in a running `multi-machine(2)` mode application.

A,B -> B,A — Master migration from A to B. A,B -> A,C — Change backup master LMID designation to C.

Note that master migration can be either orderly or partitioned. Orderly migration takes place when the master machine is active and reachable. Otherwise, partitioned migration takes place. All newly established or re-established network connections verify that the two sites connecting share a common view of where the master machine is located. Otherwise, the connection is refused and an appropriate log message is generated.

The master and backup machines in an active application must always have a Tuxedo system release number greater than or equal to all other machines active in the application. The master and backup machines must be of the same release. Modifications to the `tuxTdomainMaster` object must preserve this relationship.

tuxTdomainModel

Syntax

`INTEGER { single-machine(1) | multi-machine(2) }`

Access

read-write

Description

The configuration type.

`single-machine(1)`

Specifies a single machine configuration; only one `tuxTmachineTable` object can be specified.

`multi-machine(2)`

Specifies a multi-machine or network configuration; `multi-machine(2)` must be specified if a networked application is being defined.

tuxTdomainState

Syntax

`INTEGER { active(1) | inactive(2) | forcible-inactive(3) }`

Access

read-write

Description

The values for `GET` and `SET` operations are as follows:

`GET: {active(1)|inactive(2)}`

A `GET` operation retrieves configuration and run-time information for the `tuxTdomain` group. The following states indicate the meaning of a `tuxTdomainState` returned in response to a `GET` request. States not listed are not returned.

`active(1)`
: `tuxTdomain` group is defined and the master machine is active.

`inactive(2)`
: `tuxTdomain` group is defined and application is inactive.

`SET: active(1)|inactive(2)|forcible-inactive(3)`

A `SET` operation updates configuration and run-time information for the `tuxTdomain` group. The following states indicate the meaning of a `tuxTdomainState` set in a `SET` request. States not listed cannot be set.

`active(1)`

Activate administrative processes (DBBL, BBL, and so on) on the master machine. A state change is allowed only when the object is in the `inactive(2)` state. Successful return leaves the object in the `active(1)` state.

`inactive(2)`

Deactivate administrative processes (DBBL, BBL, and so on) on the master machine. A state change is allowed only when the object is in the `active(1)` state. Successful return leaves the object in the `inactive(2)` state. To do a complete shutdown of the application, you must first make all groups inactive. (See `tuxTgroupState`.) This state transition fails if any application servers or clients are still attached to the domain. To ignore any running clients or application servers, set to `forcible-inactive(3)` as explained below.

`forcible-inactive(3)`

Forcibly deactivate administrative processes (DBBL, BBL, and so on) on the master machine. Attached clients are ignored for the purpose of determining if shutdown should be allowed. State change is allowed only when the object is in the `active(1)` state. Successful return leaves the object in the `inactive(2)` state. You need to restart any clients before they can be used to process services after this state transition.

tuxTdomainID

Syntax

`DisplayString` (`SIZE` (*`0..30`*))

Access

read-write

Description

Domain identification string.

tuxTdomainUID

Syntax

`INTEGER`

Access

read-write

Description

Default value for newly configured objects in the `tuxTmachineTable` group.

Note: Changes to this object do not affect active or already configured `tuxTmachineTable` instances.

tuxTdomainGID

Syntax

`INTEGER`

Access

read-write

Description

Default value for newly configured objects in the `tuxTmachineTable` group.

Note: Changes to this object do not affect active or already configured `tuxTmachineTable` instances.

tuxTdomainPerm

Syntax

`DisplayString` (`SIZE`(*`1..9`*))

Access

read-write

Description

Default value for newly configured objects in the `tuxTmachineTable` group.

Note: Changes to this object do not affect active or already configured `tuxTmachineTable` instances.

tuxTdomainMask

Syntax

`DisplayString` (`SIZE`(`1..9`))

Access

read-write

Description

Attribute access mask. User type/access mode combinations specified by `tuxTdomainMask` are no longer allowed for all group/object combinations defined in `TM_MIB(5)`. For example, a setting of 0003 disallows all updates to users other than the administrator or the operator. The value of this object should be provided as an octal number — 0 through 0777.

tuxTdomainMaxAccessers

Syntax

`INTEGER (1..32767)`

Access

read-write

Description

Default value for newly configured objects in the `tuxTmachineTable` group.

Note: Changes to this object do not affect active or already configured `tuxTmachineTable` instances.

tuxTdomainMaxConv

Syntax

`INTEGER (0..32767)`

Access

read-write

Description

Default value for newly configured objects in the `tuxTmachineTable` group.

Note: Changes to this object do not affect active or already configured `tuxTmachineTable` instances.

tuxTdomainMaxGTT

Syntax

`INTEGER (0..32767)`

Access

read-write

Description

Default value for newly configured objects in the `tuxTmachineTable` group.

Note: Changes to this object do not affect active or already configured `tuxTmachineTable` instances.

tuxTdomainMaxBufsType

Syntax

`INTEGER (1..32767)`

Access

read-write

Description

Maximum number of buffer subtypes that can be accommodated in the bulletin board buffer subtype table.

tuxTdomainMaxBufType

Syntax

`INTEGER (1..32767)`

Access

read-write

Description

Maximum number of buffer types that can be accommodated in the bulletin board buffer type table.

tuxTdomainMaxDRT

Syntax

`INTEGER (0..32767)`

Access

read-write

Description

Maximum number of routing table entries that can be accommodated in the bulletin board routing table. One entry per `tuxTroutingTable` group object is required. Additional entries should be allocated to allow for run-time growth.

tuxTdomainMaxGroups

Syntax

`INTEGER (100..32767)`

Access

read-write

Description

Maximum number of server groups that can be accommodated in the bulletin board server group table.

tuxTdomainMaxMachines

Syntax

`INTEGER (256..8190)`

Access

read-write

Description

Maximum number of machines that can be accommodated in the bulletin board machine table.

tuxTdomainMaxQueues

Syntax

`INTEGER (1..8191)`

Access

read-write

Description

Maximum number of queues to be accommodated in the bulletin board queue table.

tuxTdomainMaxRFT

Syntax

`INTEGER (0..32767)`

Access

read-write

Description

Maximum number of routing criteria range table entries to be accommodated in the bulletin board range criteria table. One entry per individual range within a `tuxTroutingRanges` specification is required plus one additional entry per `tuxTroutingTable` group object. Additional entries should be allocated to allow for run-time growth.

tuxTdomainMaxRTData

Syntax

```
INTEGER (0..32760)
```

Access

read-write

Description

Maximum string pool space to be accommodated in the bulletin board string pool table. Strings and carrays specified within `tuxTroutingRanges` values are stored in the string pool. Additional space should be allocated to allow for run-time growth.

tuxTdomainMaxServers

Syntax

```
INTEGER (1..8191)
```

Access

read-write

Description

Maximum number of servers to be accommodated in the bulletin board server table. Allowances should be made in setting this object for system supplied administrative servers. Administration of each Tuxedo system site adds approximately one server. Additionally, if TMSs are specified for any server groups (see `tuxTgroupTMSname`), they are booted along with their server group and should be accounted for in setting `tuxTdomainMaxServers`.

tuxTdomainMaxServices

Syntax

`INTEGER (1..32767)`

Access

read-write

Description

Maximum number of services to be accommodated in the bulletin board service table. Allowances should be made in setting this object for system supplied servers that offer services for administrative purposes. Administration of each Tuxedo system site adds approximately five services. Other administrative components such as /WS, /Q, and /DM can also add administrative services that should be accounted for.

tuxTdomainMaxACLgroups

Syntax

`INTEGER (1..16384)`

Access

read-write

Description

Maximum number of group identifiers that can be used for checking ACL permissions. The maximum group identifier that can be defined is `tuxTdomainMaxACLgroups - 1`.

tuxTdomainCMTRET

Syntax

`INTEGER { complete(1) | logged(2) }`

Access

read-write

Description

Initial setting of the TP_COMMIT_CONTROL characteristic for all client and server processes in a Tuxedo application. `logged(2)` initializes the TP_COMMIT_CONTROL characteristic to TP_CMT_LOGGED; otherwise, it is initialized to TP_CMT_COMPLETE. See the description of the Tuxedo system ATMI function `tpscmt`(3) for details on the setting of this characteristic.

Note: Run-time modifications to this object do not affect active clients and servers.

tuxTdomainLoadBalance

Syntax

`INTEGER { yes(1) | no(2) }`

Access

read-write

Description

`yes(1)`
Load balancing is on.

`no(2)`
Load balancing is off.

Note: Run-time modifications to this object do not affect active clients and servers.

tuxTdomainNotify

Syntax

`INTEGER { dipin(1) | signal(2) | ignore(3) }`

Access

read-write

Description

Default notification detection method used by the system for unsolicited messages sent to client processes. This default value can be overridden on a per-client basis using the appropriate `tpinit`(3) flag value. Note that once unsolicited messages are detected, they are made available to the application through the application defined unsolicited message handling routine identified through the `tpsetunsol`(3) function.

`dipin(1)`
: The value `dipin(1)` specifies that dip-in-based notification detection should be used, which means that the system only detects notification messages on behalf of a client process while within ATMI calls. The point of detection within any particular ATMI call is not defined by the system, and dip-in detection does not interrupt blocking system calls. `dipin(1)` is the default notification detection method.

`signal(2)`
: The value `signal(2)` specifies that signal-based notification detection should be used, which means that the system sends a signal to the target client process after the notification message has been made available. The system installs a signal catching routine on behalf of clients that select this method of notification.

`ignore(3)`
: The value `ignore(3)` specifies that by default, notification messages are to be ignored by application clients, which would be appropriate in applications where only clients that request notification at `tpinit`(3) time should receive unsolicited messages.

Note: Run-time modifications to this object do not affect active clients. All signaling of client processes is done by administrative system processes and not by application processes. Therefore, only clients running with the same UNIX system user identifier can be notified by use of the `signal(2)` method.

tuxTdomainSystemAccess

Syntax

```
INTEGER { fastpath(1) | protected(2) | fastpath-no-override(3) |
protected-no-override(4) }
```

Access

read-write

Description

Default mode used by Tuxedo system libraries within application processes to gain access to Tuxedo system's internal tables.

`fastpath(1)`
: Specifies that Tuxedo system's internal tables are accessible by Tuxedo system libraries via unprotected shared memory for fast access.

`protected(2)`

Specifies that Tuxedo system's internal tables are accessible by Tuxedo libraries through protected shared memory for safety against corruption by application code.

`fastpath-no-override(3)` **or** `protected-no-override(4)`

These values can be specified to indicate that the mode selected cannot be overridden by an application process that uses flags available for use with `tpinit`(3).

Note: Updates to the `tuxTdomainSystemAccess` value in a running application affect only newly started clients and newly configured `tuxTsrvrTbl` objects.

tuxTdomainOptions

Syntax

```
INTEGER { lan(1) | migrate(2) | accstats(3) | lan-migrate(4) |
lan-accstats(5) | migrate-accstats(6) | lan-migrate-accstats(7) | none(8) }
```

Access

read-write

Description

Comma separated list of application options in effect. Valid options are defined as follows:

`lan(1)`

Networked application.

`migrate(2)`

Allow server group migration.

`accstats(3)`

Exact statistics (`single-machine(1)` mode only).

Note: Only the `accstats(3)` can be set or reset in an active application.

tuxTdomainSignal

Syntax

```
INTEGER { sigusr1(1) | sigusr2(2) }
```

Access

read-write

Description

Signal to be used for signal-based notification (see `tuxTdomainNotify` above).

tuxTdomainSecurity

Syntax

`INTEGER` *`DisplayString`*

Access

read-write

Description

Type of application security. The format is:

`security_mode`[`/`*`app_password`*]

where *`security_mode`* can have the following values:

```
NONE
APP_PW
USER_AUTH
ACL
MANDATORY_ACL
```

`NONE`

> A string value of NONE for this object indicates that security is/will be turned off.

`APP_PW`

> The value `APP_PW/`*`app_password`* indicates that application password security is enforced. Clients must provide the application password during initialization.

`USER_AUTH`

> The value `USER_AUTH` is similar to `APP_PW`, but indicates also that per-user authentication is done during client initialization.

`ACL`

> The value `ACL` is similar to `USER_AUTH`, but also indicates that access control checks are done on service names, queue names, and event names. If an associated ACL is not found for a name, it is assumed that permission is granted

`MANDATORY_ACL`

> The value `MANDATORY_ACL` is similar to `ACL`, but permission is denied if an associated ACL is not found for the name.

`app_password`

This value is needed whenever *`security_mode`* is being set to anything but `NONE`. To change the value of *`app_password`*, `SET` this object to:

`current_security_mode/new_password`

On a `GET` operation, this object only returns the security mode; the password is not returned.

tuxTdomainAuthsvc

Syntax

`DisplayString` (`SIZE` (*`1..127`*))

Access

read-write

Description

Application authentication service invoked by the system for each client that joins the system. The `tuxTdomainAuthsvc` value is ignored if the `tuxTdomainSecurity` object is set to `NONE` or to `APP-PW`.

tuxTdomainScanUnit

Syntax

`INTEGER (0..60)`

Access

read-write

Description

Interval of time (in seconds) between periodic scans by the system. Periodic scans are used to detect old transactions and timed-out blocking calls within service requests. The `tuxTdomainBBLQuery`, `tuxTdomainBlockTime`, `tuxTdomainDBBLWait`, and `tuxTdomainSanityScan` objects are multipliers of this value. Passing a value of 0 for this object on a `SET` operation causes the object to be reset to its default value.

tuxTdomainBBLQuery

Syntax

`INTEGER (0..32767)`

Access

read-write

Description

Multiplier of the `tuxTdomainScanUnit` object that indicates time between DBBL status checks on registered BBLs. The DBBL checks to ensure that all BBLs have reported within the `tuxTdomainBBLQuery` cycle. If a BBL has not been heard from, the DBBL sends a message to that BBL asking for status. If no reply is received, the BBL is partitioned. Passing a value of 0 for this object on a `SET` operation causes the object to be reset to its default value. The `tuxTdomainBBLQuery` value should be set to at least twice the value set for `tuxTdomainSanityScan`.

tuxTdomainBlockTime

Syntax

`INTEGER (0..32767)`

Access

read-write

Description

Multiplier of the `tuxTdomainScanUnit` object that indicates the minimum amount of time a blocking ATMI call blocks before timing out. Passing a value of 0 for this object on a `SET` operation causes the object to be reset to its default value.

tuxTdomainDBBLWait

Syntax

`INTEGER (0..32767)`

Access

read-write

Description

Multiplier of the `tuxTdomainScanUnit` object that indicates the maximum amount of time a DBBL should wait for replies from its BBLs before timing out. Passing a value of 0 for this object on a `SET` operation causes the object to be reset to its default value.

tuxTdomainSanityScan

Syntax

`INTEGER (0..32767)`

Access

read-write

Description

Multiplier of the `tuxTdomainScanUnit` object that indicates the time interval between basic sanity checks of the system. Sanity checking includes client/server viability checks done by each BBL for clients/servers running on the local machine as well as BBL status check-ins (`multi-machine(2)` mode only). Passing a value of 0 for this object on a `SET` operation causes the object to be reset to its default value.

tuxTdomainCurDRT

Syntax

`INTEGER (0..32767)`

Access

read-only

Description

Current number of bulletin board routing table entries in use.

tuxTdomainCurGroups

Syntax

`INTEGER (0..32767)`

Access

read-only

Description

Current number of bulletin board server group table entries that are in use.

tuxTdomainCurMachines

Syntax

`INTEGER (0..32767)`

Access

read-only

Description

Current number of configured machines.

tuxTdomainCurQueues

Syntax

`INTEGER (0..32767)`

Access

read-only

Description

Current number of bulletin board queue table entries that are in use.

tuxTdomainCurRFT

Syntax

`INTEGER (0..32767)`

Access

read-only

Description

Current number of bulletin board routing criteria range table entries that are in use.

tuxTdomainCurRTdata

Syntax

`INTEGER (0..32767)`

Access

read-only

Description

Current size of routing table string pool.

tuxTdomainCurServers

Syntax

`INTEGER (0..32767)`

Access

read-only

Description

Current number of bulletin board server table entries that are in use.

tuxTdomainCurServices

Syntax

`INTEGER (0..32767)`

Access

read-only

Description

Current number of bulletin board service table entries that are in use.

tuxTdomainCursType

Syntax

`INTEGER (0..32767)`

Access

read-only

Description

Current number of bulletin board subtype table entries that are in use.

tuxTdomainCurType

Syntax

`INTEGER (0..32767)`

Access

read-only

Description

Current number of bulletin board type table entries that are in use.

tuxTdomainHwDRT

Syntax

`INTEGER (0..32767)`

Access

read-only

Description

High water number of bulletin board routing table entries that are in use.

tuxTdomainHwGroups

Syntax

`INTEGER (0..32767)`

Access

read-only

Description

High water number of bulletin board server group table entries that are in use.

tuxTdomainHwMachines

Syntax

`INTEGER (0..32767)`

Access

read-only

Description

High water number of configured machines.

tuxTdomainHwQueues

Syntax

`INTEGER (0..32767)`

Access

read-only

Description

High water number of bulletin board queue table entries that are in use.

tuxTdomainHwRFT

Syntax

`INTEGER (0..32767)`

Access

read-only

Description

High water number of bulletin board routing criteria range table entries that are in use.

tuxTdomainHwRTdata

Syntax

`INTEGER (0..32767)`

Access

read-only

Description

High water size of routing table string pool.

tuxTdomainHwServers

Syntax

`INTEGER (0..32767)`

Access

read-only

Description

High water number of bulletin board server table entries that are in use.

tuxTdomainHwServices

Syntax

`INTEGER (0..32767)`

Access

read-only

Description

High water number of bulletin board service table entries that are in use.

tuxTdomainMaxNetGroups

Syntax

`INTEGER (1..8191)`

Access

read-write

Description

The maximum number of groups that can be configured.

tuxMaxObjects (Tuxedo 8.0 or later)

Syntax

`INTEGER`

Access

read-write

Description

The default maximum number of active CORBA objects that can be accommodated in the Active Object Map tables in the Tuxedo bulletin board.

tuxMaxInterfaces (Tuxedo 8.0 or later)

Syntax

`INTEGER (1..32765)`

Access

read-write

Description

Specifies the maximum number of interfaces that can be accommodated in the interface table of the bulletin board. If not specified, the default is 100.

All instances of an interface occupy and re-use the same slot in the interface table in the bulletin board. For example, if server SVR1 advertises interfaces IF1 and IF2, SVR2 advertises IF2 and IF3, and SVR3 advertises IF3 and IF4, the interface count is 4, not 6, when calculating `tuxMaxInterfaces`.

tuxTdomainSignatureAhead

Syntax

`INTEGER (1..2147483647)`

Access

read-write

Description

Number of seconds a valid signature’s timestamp can be ahead of the local machine’s clock.

tuxCurInterfaces (Tuxedo 8.0 or later)

Syntax

`INTEGER`

Access

read-only

Description

The current number of interface entries used in the bulletin board interface tables.

tuxHwInterfaces (Tuxedo 8.0 or later)

Syntax

`INTEGER`

Access

read-only

Description

The high water mark for the number of interface entries used in the bulletin board interface tables.

tuxTdomainSignatureBehind

Syntax

`INTEGER (1..2147483647)`

Access

read-write

Description

Number of seconds a valid signature’s timestamp can be behind the local machine’s clock.

tuxTdomainEncryptionRequired

Syntax

`INTEGER {yes(1) | no(2)}`

Access

read-write

Description

If set to "`yes`," every application service in this domain requires an encrypted input message buffer.

tuxTdomainSignatureRequired

Syntax

`INTEGER {yes(1) | no(2)}`

Access

read-write

Description

If set to "`yes`," every application service in this domain requires a valid digital signature on its input message buffer.

tuxTgroupTable

The `tuxTgroupTable` group contains objects that represent application characteristics pertaining to a particular server group. The object values represent group identification, location, and DTP information.

The index for this table is `tuxTgroupNo`. To create a new row, it is necessary to issue a `SET` request for a non-existing instance that at least specifies values for `tuxTgroupName` and `tuxTgroupLMID`.

Object Name	Object ID
`tuxTgroupName`	.1.3.6.1.4.1.140.300.4.1.1.1
`tuxTgroupNo`	.1.3.6.1.4.1.140.300.4.1.1.2
`tuxTgroupLMID`	.1.3.6.1.4.1.140.300.4.1.1.3
`tuxTgroupState`	.1.3.6.1.4.1.140.300.4.1.1.4
`tuxTgroupCurLMID`	.1.3.6.1.4.1.140.300.4.1.1.5
`tuxTgroupCloseInfo`	.1.3.6.1.4.1.140.300.4.1.1.6
`tuxTgroupOpenInfo`	.1.3.6.1.4.1.140.300.4.1.1.7
`tuxTgroupTMScount`	.1.3.6.1.4.1.140.300.4.1.1.8
`tuxTgroupTMSname`	.1.3.6.1.4.1.140.300.4.1.1.9
`tuxTgroupEncryptionRequired`	.1.3.6.1.4.1.140.300.4.1.1.20
`tuxTgroupSignatureRequired`	.1.3.6.1.4.1.140.300.4.1.1.30

tuxTgroupName

Syntax

`DisplayString` (`SIZE` (*`1..30`*))

Access

read-write

Description

Logical name of the server group. The group name must be unique within all group names in the `tuxTgroupTable` group and `tuxTgroupLMID` values in the `tuxTmachineTable` group. Server group names cannot contain an asterisk (*), comma, or colon.

Note: This object can be set only during row creation.

tuxTgroupNo

Syntax

`INTEGER (1..29999)`

Access

read-write

Description

Group number associated with this server group.

Note: This object can be set only during row creation.

tuxTgroupLMID

Syntax

`DisplayString` (`SIZE` (*`1..61`*))

Access

read-write

Description

`DisplayString` is in the format: *`LMID1`*`[,`*`LMID2`*`]`

`LMID1`

Is the primary machine logical machine identifier for this server group and is in the range from one to sixty-one characters.

`LMID2`

Is the optional secondary logical machine identifier and is in the range from one to sixty-one characters.

The secondary LMID indicates the machine to which the server group can be migrated (if the MIGRATE option is specified in the `tuxTdomainOptions` object). A single LMID specified on a `GET` operation matches either the primary or secondary LMID. Note that the location of an active group is available in the `tuxTgroupCurLMID` object. Logical machine identifiers specified with the `tuxTgroupLMID` object must already be configured.

Note: Modifications to this object for an active object can only change the backup LMID designation for the group.

tuxTgroupState

Syntax

`INTEGER { active(1) | inactive(2) | migrating(3) | invalid(4) | re-active(5) | suspend-services(6) | resume-services(7)}`

Access

read-write

Description

The values for `GET` and `SET` operations are as follows:

`GET: {active(1)|inactive(2)|migrating(3)}`

A `GET` operation retrieves configuration and run-time information for the selected `tuxTgroupTable` object(s). The following states indicate the meaning of a `tuxTgroupState` returned in response to a `GET` request. States not listed are not returned.

`active(1)`

`tuxTgroupTable` object defined and active (TMS and/or application servers). Server groups with non-0 length values for the `tuxTgroupTMSname` object are considered active if the TMSs associated with the group are active. Otherwise, a group is considered active if any server in the group is active.

`inactive(2)`

`tuxTgroupTable` object defined and inactive.

`migrating(3)`

`tuxTgroupTable` object defined and currently in a state of migration to the secondary logical machine. The secondary logical machine is the one listed in `tuxTgroupLMID` that does not match `tuxTgroupCurLMID`.

`SET: {active(1)|inactive(2)|migrating(3)|invalid(4)|re-active(5)|suspend-services(6)|resume-services(7)}`

A `SET` operation updates configuration and run-time information for the selected `tuxTgroupTable` object. The following states indicate the meaning of a `tuxTgroupState` set in a `SET` request. States not listed cannot be set.

`active(1)`

Activate the `tuxTgroupTable` object. State change is allowed only when the group is in the `inactive(2)` or `migrating(3)` state. If the group is currently in the `inactive(2)` state and the primary logical machine is active, then TMS and application servers are started on the primary logical machine; otherwise, if the secondary logical machine is active, the TMS and application servers are started on the secondary logical machine. If neither machine is active, then the request fails. If the group is currently in the `migrating(3)` state, then the active secondary logical machine (identified as the alternate to `tuxTgroupCurLMID` in the `tuxTgroupLMID` list), if it is active, is used to start TMS and application servers. Otherwise, the request fails. Successful return leaves the object in the `active(1)` state.

`inactive(2)`

Deactivate the `tuxTgroupTable` instance. TMS and application servers are deactivated. State change is allowed only when the group is in the `active(1)` or `migrating(3)` state. Successful return leaves the object in the `inactive(2)` state.

`migrating(3)`

Deactivate the `tuxTgroupTable` object on its active primary logical machine (`tuxTgroupCurLMID`) and prepare the group to be migrated to the secondary logical machine. State change is allowed only when the group is in the `active(1)` state. Successful return leaves the object in the `migrating(3)` state.

`invalid(4)`

Delete `tuxTgroupTable` object for application. State change is allowed only when the group is in the `inactive(2)` state. Successful return leaves the object in the `invalid(4)` state.

`re-active(5)`

Identical to a transition to the `active(1)` state except that this state change is also allowed in the `active(1)` state as well as the `inactive(2)` and `migrating(3)` states.

`suspend-services(6)`

Suspend the application services in the group. A `SET` operation to this state is allowed only when the group is in the `active(1)` state. The operation leaves the group in `active(1)` state but with all its application services in a suspended state.

`resume-services(7)`

Unsuspend and resume all application services that are marked suspended in the group. This operation is allowed only when the group is in the `active(1)` state. The operation leaves the group in the `active(1)` state.

tuxTgroupCurLMID

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-only

Description

Current logical machine on which the server group is running. The `tuxTgroupCurLMID` value is not returned for server groups that are not active.

tuxTgroupCloseInfo

Syntax

`DisplayString` (`SIZE`(*`0..256`*))

Access

read-write

Description

If a non-0 length value other than `TMS` is specified for the `tuxTgroupTMSname` object, then the `tuxTgroupCloseInfo` value indicates the resource manager-dependent information needed to terminate access to the resource manager. Otherwise, this object value is ignored.

The format for the `tuxTgroupCloseInfo` value is dependent on the requirements of the vendor providing the underlying resource manager. The information required by the vendor must be prefixed with *`rm_name`*`:`, which is the published name of the vendor's transaction (XA) interface followed immediately by a colon (:).

A 0-length string value for this object means that the resource manager for this group (if specified) does not require any application-specific information to close access to the resource.

Note: Run-time modifications to this object do not affect active servers in the group.

tuxTgroupOpenInfo

Syntax

`DisplayString` (`SIZE`(*`0..256`*))

Access

read-write

Description

If a non-0 length value other than `TMS` is specified for the `tuxTgroupTMSname` object, the `tuxTgroupOpenInfo` value indicates the resource manager-dependent information needed to initiate access to the resource manager. Otherwise, this object value is ignored.

The format for the `tuxTgroupOpenInfo` value is dependent on the requirements of the vendor that provides the underlying resource manager. The information required by the vendor must be prefixed with *`rm_name`*`:`, which is the published name of the vendor's transaction (XA) interface followed immediately by a colon (:).

A 0-length string value for `tuxTgroupOpenInfo` means that the resource manager for this group (if specified) does not require any application-specific information to open access to the resource.

Note: Run-time modifications to this object do not affect active servers in the group.

tuxTgroupTMScount

Syntax

`INTEGER (0..11)`

Access

read-write

Description

If a non-0 length value is specified for the `tuxTgroupTMSname` object, the `tuxTgroupTMScount` value indicates the number of transaction manager servers to start for the associated group. Otherwise, this object value is ignored.

tuxTgroupTMSname

Syntax

`DisplayString` (`SIZE`(*`0..256`*)) (up to 78 bytes for Oracle Tuxedo 8.0 or earlier)

Access

read-write

Description

Transaction manager server `a.out` associated with this group. This parameter must be specified for any group entry whose servers participate in distributed transactions (transactions across multiple resource managers and possibly machines that are started with `tpbegin`(3) and ended with `tpcommit`(3) or `tpabort`(3)).

The value `TMS` is reserved to indicate use of the null XA interface. If a non-empty value other than `TMS` is specified, a `tuxTmachineTlogDevice` must be specified for the machine(s) associated with the primary and secondary logical machines for this object

A unique server identifier is selected automatically for each TM server, and the servers are restartable an unlimited number of times.

tuxTgroupEncryptionRequired

Syntax

`INTEGER { yes(1) | no(2)}`

Access

read-write

Description

If set to “`yes`,” every application service in this group requires an encrypted message buffer.

tuxTgroupSignatureRequired

Syntax

`INTEGER { yes(1) | no(2)}`

Access

read-write

Description

If set to “`yes`,” every application service in this group requires a valid digital signature on its input message buffer.

tuxTmachineTable

The `tuxTmachineTable` group contains objects that represent application characteristics pertaining to a particular machine. The object values represent machine characteristics, per-machine sizing, statistics, customization options, and UNIX system filenames. This group is available for configured-inactive as well as configured-active machines in the application.

The index into this table is `tuxTmachinePmid`. To create a new row, issue a SET request for a non-existing row that specifies at least the values for `tuxTmachineLmid`, `tuxTmachineTuxDir`, `tuxTmachineTuxConfig`, and `tuxTmachineAppDir`. For a multi-machine Tuxedo application, `tuxTmachineNaddr`, `tuxTmachineNlsAddr`, and `tuxTmachineBridge` must also be specified.

Object Name	**Object ID**
`tuxTmachinePmid`	.1.3.6.1.4.1.140.300.5.1.1.1
`tuxTmachineLmid`	.1.3.6.1.4.1.140.300.5.1.1.2
`tuxTmachineTuxConfig`	.1.3.6.1.4.1.140.300.5.1.1.3
`tuxTmachineTuxDir`	.1.3.6.1.4.1.140.300.5.1.1.4
`tuxTmachineAppDir`	.1.3.6.1.4.1.140.300.5.1.1.5
`tuxTmachineState`	.1.3.6.1.4.1.140.300.5.1.1.6
`tuxTmachineUid`	.1.3.6.1.4.1.140.300.5.1.1.7
`tuxTmachineGid`	.1.3.6.1.4.1.140.300.5.1.1.8
`tuxTmachineEnvFile`	.1.3.6.1.4.1.140.300.5.1.1.9
`tuxTmachinePerm`	.1.3.6.1.4.1.140.300.5.1.1.10
`tuxTmachineUlogPfx`	.1.3.6.1.4.1.140.300.5.1.1.11
`tuxTmachineType`	.1.3.6.1.4.1.140.300.5.1.1.12
`tuxTmachineMaxAccessers`	.1.3.6.1.4.1.140.300.5.1.1.13
`tuxTmachineMaxConv`	.1.3.6.1.4.1.140.300.5.1.1.14
`tuxTmachineMaxGtt`	.1.3.6.1.4.1.140.300.5.1.1.15
`tuxTmachineMaxWsClients`	.1.3.6.1.4.1.140.300.5.1.1.16

Object Name	Object ID
`tuxTmachineMaxAclCache`	.1.3.6.1.4.1.140.300.5.1.1.17
`tuxTmachineTlogDevice`	.1.3.6.1.4.1.140.300.5.1.1.18
`tuxTmachineTlogName`	.1.3.6.1.4.1.140.300.5.1.1.19
`tuxTmachineTlogSize`	.1.3.6.1.4.1.140.300.5.1.1.20
`tuxTmachineBridge`	.1.3.6.1.4.1.140.300.5.1.1.21
`tuxTmachineNaddr`	.1.3.6.1.4.1.140.300.5.1.1.22
`tuxTmachineNlsaddr`	.1.3.6.1.4.1.140.300.5.1.1.23
`tuxTmachineCmpLimit`	.1.3.6.1.4.1.140.300.5.1.1.24
`tuxTmachineTmNetLoad`	.1.3.6.1.4.1.140.300.5.1.1.25
`tuxTmachineSpinCount`	.1.3.6.1.4.1.140.300.5.1.1.26
`tuxTmachineRole`	.1.3.6.1.4.1.140.300.5.1.1.27
`tuxTmachineMinor`	.1.3.6.1.4.1.140.300.5.1.1.28
`tuxTmachineRelease`	.1.3.6.1.4.1.140.300.5.1.1.29
`tuxTmachineMaxPendingBytes`	.1.3.6.1.4.1.140.300.5.1.1.30
`tuxMaxMachineObjects` (Tuxedo 8.0 or later)	.1.3.6.1.4.1.140.300.5.1.1.35
`tuxTmachineEncryptionRequired`	.1.3.6.1.4.1.140.300.5.1.1.50
`tuxTmachineSignatureRequired`	.1.3.6.1.4.1.140.300.5.1.1.60

tuxTmachinePmid

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-write

Description

Physical machine identifier. This identifier should match the UNIX system nodename returned by the `uname -n` command when run on the identified system. For a Windows NT system, this identifier should match the computer name and the name configured with the name server.

Note: This object can be set only during row creation.

tuxTmachineLmid

Syntax

`DisplayString` (`SIZE`(`1..30`))

Access

read-write

Description

Logical machine identifier.

Note: This object can be set only during row creation.

tuxTmachineTuxConfig

Syntax

`DisplayString` (`SIZE` (`2..256`)) (up to 78 bytes for Oracle Tuxedo 8.0 or earlier)

Access

read-write

Description

Absolute pathname of the file or device where the binary Tuxedo system configuration file is found on this machine. The administrator need only maintain one such file, namely the one identified by the `tuxTmachineTuxConfig` value on the master machine. The information contained in this file is automatically propagated to all other `tuxTmachineTable` objects as they are activated. See `tuxTmachineEnvFile` for a discussion of how the `tuxTmachineTuxConfig` value is used in the environment.

tuxTmachineTuxDir

Syntax

`DisplayString` (`SIZE`(*`2..256`*)) (up to 78 bytes for Oracle Tuxedo 8.0 or earlier)

Access

read-write

Description

Absolute pathname of the directory where the Tuxedo system software is found on this machine. See `tuxTmachineEnvFile` that follows for a discussion about how the `tuxTmachineTuxDir` value is used in the environment.

tuxTmachineAppDir

Syntax

`DisplayString` (`SIZE` (*`2..256`*)) (up to 78 bytes for Oracle Tuxedo 8.0 or earlier)

Access

read-write

Description

Colon-separated list of application directory absolute pathnames. The first directory serves as the current directory for all application and administrative servers booted on this machine. All directories in the list are searched when application servers are started. See `tuxTmachineEnvFile` for a discussion of how the `tuxTmachineAppDir` value is used in the environment.

tuxTmachineState

Syntax

```
INTEGER { active(1) | inactive(2) | partitioned(3) | invalid(4) |
re-activate(5) | cleaning(7) }
```

Access

read-write

Description

The values for `GET` and `SET` operations are as follows:

`GET: {active(1)|inactive(2)|partitioned(3)}`
: A `GET` operation retrieves configuration and run-time information for the selected `tuxTmachineTable` instance(s). The following states indicate the meaning of a `tuxTmachineState` returned in response to a `GET` request. States not listed are not returned

`active(1)`
: `tuxTmachineTable` instance defined and active (administrative servers, that is, DBBL, BBL, and BRIDGE).

`inactive(2)`
: `tuxTmachineTable` instance defined and inactive.

`partitioned(3)`
: `tuxTmachineTable` instance defined, listed in accessible bulletin boards as active, but currently unreachable.

`SET: {active(1)|inactive(2)|invalid(4)|re-activate(5)|cleaning(7)}`
: A `SET` operation updates configuration and run-time information for the selected `tuxTmachineTable` instance. The following states indicate the meaning of a `tuxTmachineState` set in a `SET` request. States not listed can not be set.

`active(1)`
: Activate the `tuxTmachineTable` instance. Necessary administrative servers such as the DBBL, BBL, and BRIDGE are started on the indicated site as well as application servers configured to run on that site. State change is allowed only when the machine is in the `inactive(2)` state. Successful return leaves the object in the `active(1)` state.

`inactive(2)`
: Deactivate the `tuxTmachineTable` instance. Necessary administrative servers such as the BBL and BRIDGE are stopped on the indicated site as well as application servers running on that site. State change allowed only when the machine is in the `active(1)` state and when no other application resources are active on the indicated machine. Successful return leaves the object in the `inactive(2)` state.

`invalid(4)`
: Delete `tuxTmachineTable` instance for application. State change is allowed only when the machine is in the `inactive(2)` state. Successful return leaves the object in the `invalid(4)` state.

`re-activate(5)`
: Activate the `tuxTmachineTable` instance. Necessary administrative servers such as the DBBL, BBL, and BRIDGE are started on the indicated site. State change is allowed only

when the machine is in either the `active(1)` or `inactive(2)` state. Successful return leaves the object in the `active(1)` state.

`cleaning(7)`

Initiate cleanup/scanning activities on and relating to the indicated machine. If there are dead clients or servers on the machine, they are detected at this time. If the machine has been partitioned from the application master site, then global bulletin board entries for that machine are removed. This combination is allowed when the application is in the `active(1)` state and the `tuxTmachineTable` instance is in either the `active(1)` or `partitioned(3)` state. Successful return for a non-partitioned machine leaves the state unchanged. Successful return for a partitioned machine leaves the object in the `inactive(2)` state.

Note: State change to `inactive(2)` is allowed only for non-master machines. The master site administrative processes are deactivated through the `tuxTdomain` group.

tuxTmachineUid

Syntax

`INTEGER`

Access

read-write

Description

UNIX system user-identifier for the Tuxedo application administrator on this machine. Administrative commands such as `tmboot`(1), `tmshutdown`(1), and `tmadmin`(1) must run as the indicated user on this machine. Application and administrative servers on this machine are started as this user.

Note: This object is a UNIX-system-specific object that cannot be returned if the platform on which the application is being run is not UNIX-based.

tuxTmachineGid

Syntax

`INTEGER`

Access

read-write

Description

UNIX system group identifier for the Tuxedo application administrator on this machine. Administrative commands such as `tmboot`(1), `tmshutdown`(1), and `tmadmin`(1) must run as part of the indicated group on this machine. Application and administrative servers on this machine are started as part of this group.

Note: This object is a UNIX-system-specific object that cannot be returned if the platform on which the application is being run is not UNIX-based.

tuxTmachineEnvFile

Syntax

`DisplayString` (`SIZE`(*`2..256`*)) (up to 78 bytes for Oracle Tuxedo 8.0 or earlier)

Access

read-write

Description

Environment file for clients and servers running on this machine.

tuxTmachinePerm

Syntax

`DisplayString` (`SIZE`(*`1..9`*))

Access

read-write

Description

UNIX system permissions associated with the shared memory bulletin board created on this machine. Default UNIX system permissions for system and application message queues.

Note: Modifications to this object for an active object do not affect running servers or clients.

Note: This object is a UNIX-system-specific object that cannot be returned if the platform on which the application is being run is not UNIX-based.

tuxTmachineUlogPfx

Syntax

`DisplayString` (`SIZE(`*`0..256`*`)`) (up to 78 bytes for Oracle Tuxedo 8.0 or earlier)

Access

read-write

Description

Absolute pathname prefix of the path for the `userlog`(3) file on this machine. The `userlog`(3) file name is formed by appending the string `.mmddyy` to the `tuxTmachineUlogPfx` object value `.mmddyy` represents the month, day, and year that the messages were generated. All application and system `userlog`(3) messages generated by clients and servers running on this machine are directed to this file.

Note: Modifications to this object for an active object do not affect running servers or clients.

tuxTmachineType

Syntax

`DisplayString` (`SIZE(`*`1..15`*`)`)

Access

read-write

Description

Machine type. The `tuxTmachineType` value is used to group machines into groups of like data representations. Data encoding is not performed when communicating between machines of identical types. This object can be given any string value; values are used only for comparison. Distinct `tuxTmachineType` objects should be set when the application spans a heterogeneous network of machines or when compilers generate dissimilar structure representations. The default value for `tuxTmachineType`, a 0-length string, matches any other machine having a 0-length string as its `tuxTmachineType` object value.

tuxTmachineMaxAccessers

Syntax

`INTEGER (1..32767)`

Access

read-write

Description

Maximum number of clients and servers that can have access to the bulletin board on this machine at one time. System administration processes such as the BBL and tmadmin need not be accounted for in this figure, but all application servers and clients and TMS servers should be counted. If the application is booting workstation listeners on this site, then both the listeners and the potential number of workstation handlers that can be booted should be counted.

tuxTmachineMaxConv

Syntax

`INTEGER (0..32767)`

Access

read-write

Description

Maximum number of simultaneous conversations in which clients and servers on this machine can be involved.

tuxTmachineMaxGtt

Syntax

`INTEGER (0..32767)`

Access

read-write

Description

Maximum number of simultaneous global transactions in which this machine can be involved.

tuxTmachineMaxWsClients

Syntax

`INTEGER (0..32767)`

Access

read-write

Description

Number of entries for accessers on this machine to be reserved for workstation clients. The number specified here takes a portion of the total slots for accessers specified with the `tuxTmachineMaxAccessers` object. The appropriate setting of this parameter helps to conserve IPC resources because workstation client access to the system is multiplexed through a Tuxedo system supplied surrogate, the workstation handler. It is an error to set this number greater than `tuxTmachineMaxAccessers`.

tuxTmachineMaxAclCache

Syntax

`INTEGER (10..32000)`

Access

read-write

Description

Number of entries in the cache used for ACL entries when `tuxTdomainSecurity` is set to `acl(4)` or `mandatory-acl(5)`. The appropriate setting of this parameter helps to conserve shared memory resources and yet reduce the number of disk access to do ACL checking.

tuxTmachineTlogDevice

Syntax

`DisplayString` (`SIZE` (*`0..256`*)) (up to 64 bytes for Oracle Tuxedo 8.0 or earlier)

Access

read-write

Description

The device (raw slice) or UNIX system file containing the Tuxedo system filesystem that holds the DTP transaction log for this machine. The DTP transaction log is stored as a Tuxedo system VTOC table on the device. This device or file can be the same as that specified for the `tuxTmachineTuxConfig` object for this machine.

tuxTmachineTlogName

Syntax

`DisplayString` (`SIZE` (*`0..30`*))

Access

read-write

Description

The name of the DTP transaction log for this machine. If more than one DTP transaction log exists on the same `tuxTmachineTlogDevice`, they must have unique names. `tuxTmachineTlogName` must be different from the name of any other table on the `tuxTmachineTlogDevice` where the DTP transaction log table is created.

tuxTmachineTlogSize

Syntax

`INTEGER (1..2048)`

Access

read-write

Description

The numeric size, in pages, of the DTP transaction log for this machine. The `tuxTmachineTlogSize` object value is subject to limits based on available space in the Tuxedo system filesystem identified by the `tuxTmachineTlogDevice` object.

tuxTmachineBridge

Syntax

`DisplayString` (`SIZE` (*`0..78`*))

Access

read-write

Description

Device name to be used by the BRIDGE process placed on this logical machine to access the network. The `tuxTmachineBridge` value is a required value for participation in a networked application through a TLI-based Tuxedo system binary. This object value is not needed for sockets-based Tuxedo system binaries.

tuxTmachineNaddr

Syntax

`DisplayString` (`SIZE` (*`0..256`*)) (up to 78 bytes for Oracle Tuxedo 8.0 or earlier)

Access

read-write

Description

Specifies the complete network address to be used by the BRIDGE process placed on the logical machine as its listening address. The listening address for a BRIDGE is the means by which it is contacted by other BRIDGE processes participating in the application. This object must be set if the logical machine is to participate in a networked application, that is, if the LAN option is set in the `tuxTdomainOptions` object value.

If *`DisplayString`* has the form `0xhex-digits` or `\\xhex-digits`, it must contain an even number of valid hexadecimal digits. These forms are translated internally into a character array that contains the hexadecimal representations of the specified string.

tuxTmachineNlsaddr

Syntax

`DisplayString` (`SIZE(`*`0..256`*`)`) (up to 78 bytes for Oracle Tuxedo 8.0 or earlier)

Access

read-write

Description

Network address used by the `tlisten`(1) process servicing the network on the node identified by this logical machine. This network address has the same format as that specified for the `tuxTmachineNaddr` object.

This object must be set if the logical machine is to participate in a networked application, that is, if the LAN option is set in the `tuxTdomainOptions` object value.

tuxTmachineCmpLimit

Syntax

`DisplayString`

Access

read-write

Description

Threshold message size at which compression occurs for remote traffic and, optionally, local traffic. Remote and local can be either non-negative numeric values or the string `MAXLONG` that is dynamically translated to the maximum long setting for the machine. Setting only the remote value defaults local to `MAXLONG`.

tuxTmachineTmNetLoad

Syntax

`INTEGER (0..32767)`

Access

read-write

Description

Service load added to any remote service evaluated during load balancing on this machine.

tuxTmachineSpinCount

Syntax

`INTEGER`

Access

read-write

Description

Spincount used on this machine for pre-ticket user-level semaphore access. Default values are built into the Tuxedo system binaries on each machine. For tuning purposes, these defaults can be overridden at run-time using `tuxTmachineSpinCount`. The spincount can be reset to the default built-in value for the site by resetting `tuxTmachineSpinCount` to 0.

tuxTmachineRole

Syntax

`INTEGER { master(1)| backup(2)| other(3) }`

Access

read-only

Description

The role of this machine in the application.

`master(1)`

Indicates that this machine is the master machine,

`backup(2)`

Indicates that it is the backup master machine, and

`other(3)`

Indicates that the machine is neither the master nor the backup master machine.

tuxTmachineMinor

Syntax

`INTEGER`

Access

read-only

Description

The Tuxedo system minor protocol release number for this machine.

tuxTmachineRelease

Syntax

`INTEGER`

Access

read-only

Description

The Tuxedo system major protocol release number for this machine. This value can be different from the `tuxTmachineSWrelease` for the same machine.

tuxTmachineMaxPendingBytes

Syntax

`INTEGER`

Access

read-write

Description

Specifies a limit for the amount of space that can be allocated for messages waiting to be transmitted by the BRIDGE process. The minimum value is 100000.

tuxMachineMaxObjects (Tuxedo 8.0 or later)

Syntax

`INTEGER`

Access

read-write

Description

The maximum number of CORBA objects that can be accommodated in the Active Object Map tables in the bulletin board.

tuxTmachineEncryptionRequired

Syntax

`INTEGER { yes(1) | no(2)}`

Access

read-write

Description

If set to "`yes`," every application service on this machine requires an encrypted input message buffer.

tuxTmachineSignatureRequired

Syntax

`INTEGER { yes(1) | no(2)}`

Access

read-write

Description

If set to "`yes,`" every application service on this machine requires a valid digital signature on its input message buffer.

tuxTmachineActive

The `tuxTmachineActive` group contains objects that represent run-time statistics on the local machine if the machine is active (that is, some component of the application is active on the machine). Objects in this group are only accessible through a Tuxedo SNMP agent installed on the local machine.

Object Name	**Object ID**
`tuxTmachineCurAccessers`	.1.3.6.1.4.1.140.300.5.2.1
`tuxTmachineCurClients`	.1.3.6.1.4.1.140.300.5.2.2
`tuxTmachineCurConv`	.1.3.6.1.4.1.140.300.5.2.3
`tuxTmachineCurGTT`	.1.3.6.1.4.1.140.300.5.2.4
`tuxTmachineCurLoad`	.1.3.6.1.4.1.140.300.5.2.5
`tuxTmachineCurWsClients`	.1.3.6.1.4.1.140.300.5.2.6
`tuxTmachineHwAccessers`	.1.3.6.1.4.1.140.300.5.2.7
`tuxTmachineHwClients`	.1.3.6.1.4.1.140.300.5.2.8
`tuxTmachineHwConv`	.1.3.6.1.4.1.140.300.5.2.9
`tuxTmachineHwGTT`	.1.3.6.1.4.1.140.300.5.2.10
`tuxTmachineHwWsClients`	.1.3.6.1.4.1.140.300.5.2.11
`tuxTmachineNumConv`	.1.3.6.1.4.1.140.300.5.2.12
`tuxTmachineNumDequeue`	.1.3.6.1.4.1.140.300.5.2.13
`tuxTmachineNumEnqueue`	.1.3.6.1.4.1.140.300.5.2.14
`tuxTmachineNumPost`	.1.3.6.1.4.1.140.300.5.2.15
`tuxTmachineNumReq`	.1.3.6.1.4.1.140.300.5.2.16
`tuxTmachineNumSubscribe`	.1.3.6.1.4.1.140.300.5.2.17
`tuxTmachineNumTran`	.1.3.6.1.4.1.140.300.5.2.18
`tuxTmachineNumTranAbt`	.1.3.6.1.4.1.140.300.5.2.19

Object Name	**Object ID**
`tuxTmachineNumTranCmt`	.1.3.6.1.4.1.140.300.5.2.20
`tuxTmachineLicExpires`	.1.3.6.1.4.1.140.300.5.2.21
`tuxTmachineLicMaxUsers`	.1.3.6.1.4.1.140.300.5.2.22
`tuxTmachineLicSerial`	.1.3.6.1.4.1.140.300.5.2.23
`tuxTmachinePageSize`	.1.3.6.1.4.1.140.300.5.2.24
`tuxTmachineSWrelease`	.1.3.6.1.4.1.140.300.5.2.25
`tuxTmachineHwAclCache`	.1.3.6.1.4.1.140.300.5.2.26
`tuxTmachineAclCacheHits`	.1.3.6.1.4.1.140.300.5.2.27
`tuxTmachineAclCacheAccess`	.1.3.6.1.4.1.140.300.5.2.28
`tuxTmachineAclFail`	.1.3.6.1.4.1.140.300.5.2.29
`tuxTmachineWkCompleted`	.1.3.6.1.4.1.140.300.5.2.30
`tuxTmachineWkInitiated`	.1.3.6.1.4.1.140.300.5.2.31
`tuxMachineCurObjects` (Tuxedo 8.0 or later)	.1.3.6.1.4.1.140.300.5.2.36
`tuxMachineHwObjects` (Tuxedo 8.0 or later)	.1.3.6.1.4.1.140.300.5.2.41

tuxTmachineCurAccessers

Syntax

`INTEGER (0..32767)`

Access

read-only

Description

Number of clients and servers that currently access the application either directly on this machine or through a workstation handler on this machine.

tuxTmachineCurClients

Syntax

`INTEGER (0..32767)`

Access

read-only

Description

Number of clients, both native and workstation, currently logged in to this machine.

tuxTmachineCurConv

Syntax

`INTEGER (0..32767)`

Access

read-only

Description

Number of active conversations with participants on this machine.

tuxTmachineCurGTT

Syntax

`INTEGER (0..32767)`

Access

read-only

Description

Number of in use transaction table entries on this machine.

tuxTmachineCurLoad

Syntax

`INTEGER`

Access

read-only

Description

Current service load enqueued on this machine.

Note: If the `tuxTdomainLoadBalance` object is `no(2)` or the `tuxTdomainModel` object is `multi-machine(2)`, then an FML32 NULL value (0) is returned.

tuxTmachineCurWsClients

Syntax

`INTEGER (0..32767)`

Access

read-only

Description

Number of workstation clients currently logged in to this machine.

tuxTmachineHwAccessers

Syntax

`INTEGER (0..32767)`

Access

read-only

Description

High water number of clients and servers accessing the application either directly on this machine or through a workstation handler on this machine.

tuxTmachineHwClients

Syntax

`INTEGER (0..32767)`

Access

read-only

Description

High water number of clients, both native and workstation, logged in to this machine.

tuxTmachineHwConv

Syntax

`INTEGER (0..32767)`

Access

read-only

Description

High water number of active conversations with participants on this machine.

tuxTmachineHwGTT

Syntax

`INTEGER (0..32767)`

Access

read-only

Description

High water number of in use transaction table entries on this machine.

tuxTmachineHwWsClients

Syntax

`INTEGER (0..32767)`

Access

read-only

Description

High water number of workstation clients currently logged in to this machine.

tuxTmachineNumConv

Syntax

`INTEGER`

Access

read-only

Description

Number of `tpconnect`(3) operations performed from this machine.

tuxTmachineNumDequeue

Syntax

`INTEGER`

Access

read-only

Description

Number of `tpdequeue`(3) operations performed from this machine.

tuxTmachineNumEnqueue

Syntax

`INTEGER`

Access

read-only

Description

Number of `tpenqueue`(3) operations performed from this machine.

tuxTmachineNumPost

Syntax

`INTEGER`

Access

read-only

Description

Number of `tppost`(3) operations performed from this machine.

tuxTmachineNumReq

Syntax

`INTEGER`

Access

read-only

Description

Number of `tpacall`(3) or `tpcall`(3) operations performed from this machine.

tuxTmachineNumSubscribe

Syntax

`INTEGER`

Access

read-only

Description

Number of `tpsubscribe`(3) operations performed from this machine.

tuxTmachineNumTran

Syntax

`INTEGER`

Access

read-only

Description

Number of transactions initiated (`tpbegin`(3)) from this machine.

tuxTmachineNumTranAbt

Syntax

`INTEGER`

Access

read-only

Description

Number of transactions aborted (`tpabort`(3)) from this machine.

tuxTmachineNumTranCmt

Syntax

`INTEGER`

Access

read-only

Description

Number of transactions committed (`tpcommit(3)`) from this machine.

tuxTmachineLicExpires

Syntax

`DisplayString` (`SIZE`(*`0..78`*))

Access

read-only

Description

Expiration date for the binary on the machine or a 0-length string if binary is not a Tuxedo system master binary.

tuxTmachineLicMaxUsers

Syntax

`INTEGER (0..32767)`

Access

read-only

Description

Maximum number of licensed users on that machine, or -1 if binary is not a Tuxedo system master binary.

tuxTmachineLicSerial

Syntax

`DisplayString` (`SIZE`(*`0..78`*))

Access

read-only

Description

Serial number for binary on the machine or a 0-length string if binary is not a Tuxedo system master binary.

tuxTmachinePageSize

Syntax

`INTEGER`

Access

read-only

Description

Disk pagesize used on this machine.

tuxTmachineSWrelease

Syntax

`DisplayString` (`SIZE`(*`0..78`*))

Access

read-only

Description

Software release for binary on that machine or a 0-length string if binary is not a Tuxedo system master binary.

tuxTmachineHwAclCache

Syntax

`INTEGER`

Access

read-only

Description

High water number of entries used in the ACL cache.

tuxTmachineAclCacheHits

Syntax

`INTEGER`

Access

read-only

Description

Number of accesses to the ACL cache that resulted in a “hit” (that is, the entry was already in the cache).

tuxTmachineAclCacheAccess

Syntax

`INTEGER`

Access

read-only

Description

Number of accesses to the ACL cache.

tuxTmachineAclFail

Syntax

`INTEGER`

Access

read-only

Description

Number of accesses to the ACL cache that resulted in a access control violation.

tuxTmachineWkCompleted

Syntax

`INTEGER`

Access

read-only

Description

Total service load dequeued and processed successfully by servers running on this machine. Note that for long running applications this object can wraparound, that is, exceed the maximum value for a long, and start back at 0 again.

tuxTmachineWkInitiated

Syntax

`INTEGER`

Access

read-only

Description

Total service load enqueued by clients/servers running on this machine. Note that for long running applications this object can wraparound, that is, exceed the maximum value for a long, and start back at 0 again.

tuxMachineCurObjects (Tuxedo 8.0 or later)

Syntax

`INTEGER`

Access

read-only

Description

The number of entries in use in the bulletin board object table for this machine.

tuxMachineHwObjects (Tuxedo 8.0 or later)

Syntax

`INTEGER`

Access

read-only

Description

The high water mark of entries used in the bulletin board object table for this machine.

tuxTmsgTable

The `tuxTmsgTable` group contains objects that represent run-time characteristics of the Tuxedo system managed UNIX system message queues. Objects in this table are only accessible through a Tuxedo SNMP agent installed on the local machine. `tuxTmsgId` is the index into this table.

Object Name	Object ID
`tuxTmsgId`	.1.3.6.1.4.1.140.300.6.1.1.1
`tuxTmsgState`	.1.3.6.1.4.1.140.300.6.1.1.2
`tuxTmsgCurTime`	.1.3.6.1.4.1.140.300.6.1.1.3
`tuxTmsgCbytes`	.1.3.6.1.4.1.140.300.6.1.1.4

Object Name	Object ID
`tuxTmsgCtime`	.1.3.6.1.4.1.140.300.6.1.1.5
`tuxTmsgLrPid`	.1.3.6.1.4.1.140.300.6.1.1.6
`tuxTmsgLsPid`	.1.3.6.1.4.1.140.300.6.1.1.7
`tuxTmsgQbytes`	.1.3.6.1.4.1.140.300.6.1.1.8
`tuxTmsgQnum`	.1.3.6.1.4.1.140.300.6.1.1.9
`tuxTmsgRtime`	.1.3.6.1.4.1.140.300.6.1.1.10
`tuxTmsgStime`	.1.3.6.1.4.1.140.300.6.1.1.11

tuxTmsgId

Syntax

`INTEGER`

Access

read-only

Description

UNIX system message queue identifier.

Note: This object is a UNIX-system-specific object that cannot be returned if the platform on which the application is being run is not UNIX-based.

tuxTmsgState

Syntax

`INTEGER { active(1) }`

Access

read-only

Description

The values for `GET` and `SET` operations are as follows:

`GET: active(1)`

A `GET` operation retrieves run-time information for the selected `tuxTmsgTable` object(s). The following state indicates the meaning of a `tuxTmsgState` returned in response to a `GET` request. States not listed are not returned.

`active(1)`

`tuxTmsgTable` object active. This state corresponds exactly to the related `tuxTmachineTable` object being active.

`SET:`

`SET` operations are not permitted on this group.

tuxTmsgCurTime

Syntax

`INTEGER`

Access

read-only

Description

Current time, in seconds, since 00:00:00 UTC, January 1, 1970, as returned by the `time`(2) system call on the local host.

tuxTmsgCbytes

Syntax

`INTEGER`

Access

read-only

Description

Current number of bytes on the queue.

tuxTmsgCtime

Syntax

`INTEGER`

Access

read-only

Description

Time of the last `msgctl`(2) operation that changed a member of the `msqid_ds` structure associated with the queue.

tuxTmsgLrPid

Syntax

`INTEGER`

Access

read-only

Description

Process identifier of the last process that read from the queue.

tuxTmsgLsPid

Syntax

`INTEGER`

Access

read-only

Description

Process identifier of the last process that wrote to the queue.

tuxTmsgQbytes

Syntax

`INTEGER`

Access

read-only

Description

Maximum number of bytes allowed on the queue.

tuxTmsgQnum

Syntax

`INTEGER`

Access

read-only

Description

Number of messages currently on the queue.

tuxTmsgRtime

Syntax

`INTEGER`

Access

read-only

Description

Time since the last read from the queue.

tuxTmsgStime

Syntax

`INTEGER`

Access

read-only

Description

Time since the last write to the queue.

tuxTqueueTable

The `tuxTqueueTable` group contains objects that represent run-time characteristics of queues in an application. The object values identify and characterize allocated Tuxedo system request queues associated with servers in a running application. They also track statistics related to application workloads associated with each queue object. The index into this table is `tuxTqueueRqAddr`. Objects in this table are only accessible through a Tuxedo SNMP agent installed on the local machine.

Object Name	Object ID
`tuxTqueueRqAddr`	.1.3.6.1.4.1.140.300.7.1.1.1
`tuxTqueueState`	.1.3.6.1.4.1.140.300.7.1.1.2
`tuxTqueueRqId`	.1.3.6.1.4.1.140.300.7.1.1.3
`tuxTqueueSrvrCnt`	.1.3.6.1.4.1.140.300.7.1.1.4
`tuxTqueueTotNqueued`	.1.3.6.1.4.1.140.300.7.1.1.5
`tuxTqueueTotWkQueued`	.1.3.6.1.4.1.140.300.7.1.1.6
`tuxTqueueSource`	.1.3.6.1.4.1.140.300.7.1.1.7
`tuxTqueueNqueued`	.1.3.6.1.4.1.140.300.7.1.1.8
`tuxTqueueWkQueued`	.1.3.6.1.4.1.140.300.7.1.1.9

tuxTqueueRqAddr

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-only

Description

Symbolic address of the request queue. Servers with the same `tuxTsrvrRqAddr` object value are grouped into a Multiple Server Single Queue (MSSQ) set. object values returned with a `tuxTqueueTable` object apply to all active servers associated with this symbolic queue address.

tuxTqueueState

Syntax

`INTEGER { active(1)| migrating(2)| suspended(3)| partitioned(4) }`

Access

read-only

Description

The values for `GET` and `SET` operations are as follows:

`GET: {active(1)|migrating(2)|suspended(3)|partitioned(4)}`

A `GET` operation retrieves run-time information for the selected `tuxTqueueTable` instance(s). The `tuxTqueueTable` group does not address configuration information directly. Configuration-related objects discussed here must be set as part of the related `tuxTsrvrTbl` instances. The following states indicate the meaning of a `tuxTqueueState` returned in response to a `GET` request. States not listed are not returned.

`active(1)`

At least one server associated with this `tuxTqueueTable` instance is `active(1)`.

`migrating(2)`

The server(s) associated with this `tuxTqueueTable` instance is currently in the `migrating(2)` state. See the `tuxTsrvrTbl` group for more details on this state.

`suspended(3)`

The server(s) associated with this `tuxTqueueTable` instance is currently in the `suspended(3)` state. See the `tuxTsrvrTbl` group for more details on this state.

`partitioned(4)`

The server(s) associated with this `tuxTqueueTable` instance is currently in the `partitioned(4)` state. See the `tuxTsrvrTbl` group for more details on this state.

`SET:`

A `SET` operation updates run-time information for the selected `tuxTqueueTable` object. State changes are not allowed when updating `tuxTqueueTable` object information. Modification of an existing `tuxTqueueTable` object is allowed only when the object is in the `active(1)` state.

tuxTqueueRqId

Syntax

`INTEGER`

Access

read-only

Description

UNIX system message queue identifier.

Note: This object is a UNIX-system-specific object that cannot be returned if the platform on which the application is being run is not UNIX-based.

tuxTqueueSrvrCnt

Syntax

`INTEGER`

Access

read-only

Description

Number of active servers associated with this queue.

tuxTqueueTotNqueued

Syntax

`INTEGER`

Access

read-only

Description

The sum of the queue lengths of this queue while it has been active. This sum includes requests enqueued to and processed by servers that are no longer active on the queue. Each time a new request is assigned to the queue, the sum is incremented by the length of the queue immediately before the new request is enqueued.

Note: If the `tuxTdomainLoadBalance` object is `no(2)` or the `tuxTdomainModel` object is `multi-machine(2)`, then `tuxTqueueTotNqueued` is not returned. In the same configuration, updates to this object are ignored. Consequently, when this object is returned `tuxTqueueSource` has the same value as the local host.

tuxTqueueTotWkQueued

Syntax

`INTEGER`

Access

read-only

Description

The sum of the workloads enqueued to this queue while it has been active. This sum includes requests enqueued to and processed by servers that are no longer active on the queue. Each time a new request is assigned to the queue, the sum is incremented by the workload on the queue immediately before the new request is enqueued.

Note: If the `tuxTdomainLoadBalance` object is `no(2)` or the `tuxTdomainModel` object is `multi-machine(2)`, then `tuxTqueueTotWkQueued` is not returned. In the same configuration, updates to this object are ignored. Consequently, when this object is returned `tuxTqueueSource` has the same value as the local host.

tuxTqueueSource

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-only

Description

Logical machine from which local object values are retrieved.

tuxTqueueNqueued

Syntax

`INTEGER`

Access

read-only

Description

Number of requests currently enqueued to this queue from the `tuxTqueueSource` logical machine. This value is incremented at enqueue time and decremented when the server dequeues the request.

Note: If the `tuxTdomainLoadBalance` object is `no(2)` or the `tuxTdomainModel` object is `multi-machine(2)`, then `tuxTqueueNqueued` is not returned. Consequently, when this object is returned `tuxTqueueSource` has the same value as the local host.

tuxTqueueWkQueued

Syntax

`INTEGER`

Access

read-only

Description

Workload currently enqueued to this queue from the `tuxTqueueSource` logical machine. If the `tuxTdomainModel` object is set to `single-machine(1)` and the `tuxTdomainLoadBalance` object is set to `yes(1)`, then `tuxTqueueWkQueued` reflects the application-wide workload enqueued to this queue. However, if `tuxTdomainModel` is set to `multi-machine(2)` and `tuxTdomainLoadBalance` is set to `yes(1)`, then `tuxTqueueWkQueued` reflects the workload enqueued to this queue from the `tuxTqueueSource` logical machine during a recent timespan. The `tuxTqueueWkQueued` value is used for load balancing purposes. In order not discriminate against newly started servers, `tuxTqueueWkQueued` is zeroed out on each machine periodically by the BBL.

tuxTroutingTable

The `tuxTroutingTable` group contains objects that represent configuration characteristics of routing specifications for an application. The object values identify and characterize application data-dependent routing criteria with respect to field names, buffer types, and routing definitions. This table also represents configuration objects for factory-based routing for Tuxedo 8.0 or later applications. Object `tuxRoutingFieldType` (Tuxedo 8.0 or later) is valid only for factory-based routing. Object `tuxTroutingBufType` is valid only for service-based routing.

The index into this table consists of the following objects: `tuxTroutingName`, `tuxRoutingType`, and `tuxInternalIdx`.

Object `tuxRoutingFieldType` is valid only for factory-based routing and is supported only for Tuxedo 8.0 or later applications.

Object `tuxTroutingBufType` is valid only for service-based routing.

When specifying the index in SET requests, `tuxInternalIdx` is used as an index.

For factory-based routing, `tuxInternalIdx` must always have a value of `-`.

For service-based routing, `tuxInternalIdx` should equal the first 30 characters in `tuxTroutingBufType`.

To create a new row in the table, it is necessary to issue a SET request for a non-existing row specifying the values of all objects applicable to the `tuxRoutingType`.

Object Name	Object ID
`tuxTroutingName`	.1.3.6.1.4.1.140.300.8.1.1.1
`tuxTroutingBufType`	.1.3.6.1.4.1.140.300.8.1.1.2
`tuxTroutingField`	.1.3.6.1.4.1.140.300.8.1.1.3
`tuxTroutingRanges`	.1.3.6.1.4.1.140.300.8.1.1.4
`tuxTroutingState`	.1.3.6.1.4.1.140.300.8.1.1.5
`tuxRoutingType`	.1.3.6.1.4.1.140.300.8.1.1.6
`tuxRoutingFieldType` (Tuxedo 8.0 or later)	.1.3.6.1.4.1.140.300.8.1.1.7
`tuxInternalIdx`	.1.3.6.1.4.1.140.300.8.1.1.8

tuxTroutingName

Syntax

`DisplayString` (`SIZE`(*`1..15`*))

Access

read-write

Description

Routing criterion name.

Note: This object can be set only during row creation.

tuxTroutingBufType

Syntax

`DisplayString` (`SIZE`(*`1..256`*))

Access

read-write

Description

List of types and subtypes of data buffers for which this routing entry is valid. A maximum of 32 type/subtype combinations are allowed. The types are restricted to one of FML, VIEW, X_C_TYPE, or X_COMMON. No subtype can be specified for type FML, and subtypes are required for types VIEW, X_C_TYPE, and X_COMMON (`*` is not allowed). Note that subtype names should not contain semicolon, colon, comma, or asterisk characters. Duplicate type/subtype pairs cannot be specified for the same routing criterion name. More than one routing entry can have the same criterion name as long as the type/subtype pairs are unique. If multiple buffer types are specified for a single routing entry, the data types of the routing field for each buffer type must be the same.

Note: This object is applicable only for service-based routing.

Note: This object can be set only during row creation.

tuxTroutingField

Syntax

`DisplayString` (`SIZE`(`1..30`))

Access

read-write

Description

Routing field name.

For Service-based Routing: This field is assumed to be an FML buffer or view field name that is identified in an FML field table (using the FLDTBLDIR and FIELDTBLS environment) or an FML view table (using the VIEWDIR and VIEWFILES environment), respectively. This information is used to get the associated field value for data dependent routing during the sending of a message.

For factory-based routing: This is assumed to be a field that is specified in an NVList parameter to:

`PortableServer::POA::create_reference_with_criteria`

for an interface that has this factory routing criteria associated with it. See the Tuxedo 8.0 or later documentation for more details.

tuxTroutingRanges

Syntax

`DisplayString` (`SIZE`(*`1..2048`*))

Access

read-write

Description

The ranges and associated server groups for a routing criterion are as follows:

`criterion``:` *`range`*`:` *`group`*
`range:` *`value`* `|` *`lower`* `-` *`upper`* `| *`
`lower``:` *`value`*
`upper``:` *`value`*
`value``: MIN | MAX |` *`numeric`* `|` *`string`*
`group``:` *`string`* `| *`
`numeric``: [+ | -]`*`digits`*`[.`*`digits`*`][e | E[ | + | - ]` *`digit`*
`digit``: 0-9`
`digits``:` *`digit`*`[`*`digit`*`]`

`\` can be used to escape the single-quote character in strings.

`lower` must be less than *`upper`*. A group specified as a string must specify a valid `tuxTgroupName`.

tuxTroutingState

Syntax

`INTEGER { valid(1) | unknown(2) | invalid(3) }`

Access

read-write

Description

The values for `GET` and `SET` operations are as follows:

`GET: valid(1)`

A `GET` operation retrieves configuration information for the selected `tuxTroutingTable` instance(s). The following state indicates the meaning of a `tuxTroutingState` returned in response to a `GET` request. States not listed are not returned.

`valid(1)`

`tuxTroutingTable` instance is defined. Note that `valid(1)` is the only valid state for this group. Routing criteria are never active; rather, they are associated through the configuration with service names and are acted upon at run-time to provide data dependent routing.

`SET: invalid(3)`

A `SET` operation updates configuration information for the selected `tuxTroutingTable` instance. The following state indicates the meaning of a `tuxTroutingState` set in a `SET` request. States not listed cannot be set.

`invalid(3)`

Delete `tuxTroutingTable` instance for application. State change allowed only when in the `valid(1)` state. Successful return leaves the object in the `invalid(2)` state.

tuxRoutingType

Syntax

`INTEGER { service(1) |factory(2) }`

Access

read-write

Description

`service(1)`

Specifies that routing criteria apply to data-dependent routing for an Oracle Tuxedo service.

`factory(2)`

Specifies that the routing criterion applies to factory-based routing for a CORBA interface.

Note: The routing type affects the validity and possible values for other objects defined for this table.

Note: This object can be set during row creation only.

tuxRoutingFieldType (Tuxedo 8.0 or later)

Syntax

`INTEGER { short(1) |long(2) |float(3) |double(4) |char(5) |string(6) }`

Access

read-write

Description

This object specifies the type of `tuxTroutingField` on which this routing criterion is defined. Its value is valid only for factory-based routing.

Note: This object can be set only during row creation.

tuxInternalIdx

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-write

Description

This object is used as an index of this table instead of `tuxTroutingBufType` (for service-based routing) or `tuxTroutingField` (for factory-based routing) to reduce the size of the index. Its value for service-based routing (`tuxRoutingType` = `service(1)`) is equal to the first 30 characters in `tuxTroutingBufType`.

In case of entries for factory-based routing (`tuxRoutingType` = `factory(2)`), the value is always `tuxTroutingField`.

Note: This object can be set only during row creation.

tuxTsrvrTbl

The `tuxTsrvrTbl` group contains objects that represent configuration and run-time characteristics of servers within an application. The object values identify and characterize configured servers as well as provide run-time tracking of statistics and resources associated with each server object.

The index into this table is provided by the objects `tuxTsrvrGrpNo` and `tuxTsrvrId`. To create a new row in the table, it is necessary to issue a SET request specifying the values of at least `tuxTsrvrGrp` and `tuxTsrvrName`.

Object Name	**Object ID**
`tuxTsrvrGrp`	.1.3.6.1.4.1.140.300.20.1.1.1
`tuxTsrvrId`	.1.3.6.1.4.1.140.300.20.1.1.2
`tuxTsrvrName`	.1.3.6.1.4.1.140.300.20.1.1.3
`tuxTsrvrGrpNo`	.1.3.6.1.4.1.140.300.20.1.1.4
`tuxTsrvrState`	.1.3.6.1.4.1.140.300.20.1.1.5
`tuxTsrvrBaseSrvId`	.1.3.6.1.4.1.140.300.20.1.1.6
`tuxTsrvrClOpt`	.1.3.6.1.4.1.140.300.20.1.1.7
`tuxTsrvrEnvFile`	.1.3.6.1.4.1.140.300.20.1.1.8
`tuxTsrvrGrace`	.1.3.6.1.4.1.140.300.20.1.1.9
`tuxTsrvrMaxgen`	.1.3.6.1.4.1.140.300.20.1.1.10
`tuxTsrvrMax`	.1.3.6.1.4.1.140.300.20.1.1.11
`tuxTsrvrMin`	.1.3.6.1.4.1.140.300.20.1.1.12
`tuxTsrvrRcmd`	.1.3.6.1.4.1.140.300.20.1.1.13
`tuxTsrvrRestart`	.1.3.6.1.4.1.140.300.20.1.1.14
`tuxTsrvrSequence`	.1.3.6.1.4.1.140.300.20.1.1.15
`tuxTsrvrSystemAccess`	.1.3.6.1.4.1.140.300.20.1.1.16
`tuxTsrvrConv`	.1.3.6.1.4.1.140.300.20.1.1.17
`tuxTsrvrReplyQ`	.1.3.6.1.4.1.140.300.20.1.1.18
`tuxTsrvrRpPerm`	.1.3.6.1.4.1.140.300.20.1.1.19
`tuxTsrvrRqAddr`	.1.3.6.1.4.1.140.300.20.1.1.20
`tuxTsrvrRqPerm`	.1.3.6.1.4.1.140.300.20.1.1.21

Object Name	**Object ID**
`tuxTsrvrGeneration`	.1.3.6.1.4.1.140.300.20.1.1.22
`tuxTsrvrPid`	.1.3.6.1.4.1.140.300.20.1.1.23
`tuxTsrvrRpid`	.1.3.6.1.4.1.140.300.20.1.1.24
`tuxTsrvrRqId`	.1.3.6.1.4.1.140.300.20.1.1.25
`tuxTsrvrTimeRestart`	.1.3.6.1.4.1.140.300.20.1.1.26
`tuxTsrvrTimeStart`	.1.3.6.1.4.1.140.300.20.1.1.27
`tuxTsrvrMinDispatchThreads`	.1.3.6.1.4.1.140.300.20.1.1.40
`tuxTsrvrMaxDispatchThreads`	.1.3.6.1.4.1.140.300.20.1.1.50
`tuxTsrvrThreadStackSize`	.1.3.6.1.4.1.140.300.20.1.1.60

tuxTsrvrGrp

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-write

Description

Logical name of the server group. Server group names cannot contain an asterisk (*), comma, or colon.

Note: This object can be set only during row creation.

tuxTsrvrId

Syntax

`INTEGER (1..30001)`

Access

read-write

Description

Unique (within the server group) server identification number.

Note: This object can be set only during row creation.

tuxTsrvrName

Syntax

`DisplayString` (`SIZE`(*1..78*))

Access

read-write

Description

Name of the server executable file. The server identified by `tuxTsrvrName` runs on the machine(s) identified by the `tuxTgroupLMID` object for this server's server group. If a relative pathname is given, the search for the executable file is done first in `tuxTmachineAppDir`, then in `tuxTmachineTuxDir/bin`, then in `/bin` and `/usr/bin`, and then in *`<path>`*, where *`<path>`* is the value of the first `PATH=` line that appears in the machine environment file, if one exists. Note that the object value returned for an active server is always a full pathname.

tuxTsrvrGrpNo

Syntax

`INTEGER (1..30000)`

Access

read-only

Description

Group number associated with this server's group.

tuxTsrvrState

Syntax

`INTEGER { active(1) |inactive(2) |migrating(3) |cleaning(4) |`
`restarting(5) |suspended(6) | partitioned(7) |dead(8) | invalid(10) }`

Access

read-write

Description

The values for `GET` and `SET` operations are as follows:

`GET: active(1)|inactive(2)|migrating(3)|cleaning(4)|restarting(5)|suspended(6)|partitioned(7)|dead(8)`

A `GET` operation retrieves configuration and run-time information for the selected `tuxTsrvrTbl` instance(s). The following states indicate the meaning of a `tuxTsrvrState` returned in response to a `GET` request. States not listed are not returned.

`active(1)`

`tuxTsrvrTbl` instance is defined and active. The `active(1)` state is not an indication of whether the server is idle or busy. An active server with a non-0 length `tuxTsrvrCurService` object should be interpreted as a busy server, that is, one that is processing a service request.

`inactive(2)`

`tuxTsrvrTbl` instance is defined and inactive.

`migrating(3)`

`tuxTsrvrTbl` instance is defined and currently in a state of migration to the server group’s secondary logical machine. The secondary logical machine is the one listed in `tuxTgroupLMID` object that does not match the `tuxTgroupCurLMID` object.

`cleaning(4)`

`tuxTsrvrTbl` instance is defined and currently being cleaned up after by the system due to an abnormal death. Note that restartable servers can enter this state if they exceed `tuxTsrvrMaxgen` starts/restarts within their `tuxTsrvrGrace` period.

`restarting(5)`

`tuxTsrvrTbl` instance is defined and currently being restarted by the system due to an abnormal death.

`suspended(6)`

`tuxTsrvrTbl` instance is defined and currently suspended, pending shutdown.

`partitioned(7)`

`tuxTsrvrTbl` instance is defined and active; however, the machine where the server is running is currently partitioned from the `tuxTdomainMaster` site.

`dead(8)`

`tuxTsrvrTbl` instance is defined, identified as active in the bulletin board, but currently not running due to an abnormal death. This state exists only until the BBL local to the server notices the death and takes action (`restarting(5)|cleaning(4)`).

`SET: {active(1)|inactive(2)|dead(8)|invalid(10)}`

A `SET` operation updates configuration and run-time information for the selected `tuxTsrvrTbl` instance. The following states indicate the meaning of a `tuxTsrvrState` set in a `SET` request. States not listed cannot be set.

`active(1)`

Activate the `tuxTsrvrTbl` instance. State change is allowed only when the server is in the `inactive(2)` state. (Servers in the `migrating(3)` state must be restarted by setting the `tuxTgroupState` to `active(1)`.) Successful return leaves the object in the `active(1)` state.

`inactive(2)`

Deactivate the `tuxTsrvrTbl` instance. State change is allowed only when the server is in the `active(1)` state. Successful return leaves the object in the `inactive(2)` state.

`dead(8)`

Deactivate the `tuxTsrvrTbl` instance by sending the server a SIGTERM signal followed by a SIGKILL signal if the server is still running after 20 seconds. Note that by default, a SIGTERM signal causes the server to initiate orderly shutdown and the server becomes inactive even if it is restartable. If a server is processing a long running service or has chosen to disable the SIGTERM signal, then SIGKILL can be used and is treated by the system as an abnormal termination. State change is allowed only when the server is in the `active(1)` or `suspended(6)` state. Successful return leaves the object in the `inactive(2)`, `cleaning(4)`, or `restarting(5)` state.

`invalid(10)`

Delete `tuxTsrvrTbl` instance for application. State change is allowed only when the server is in the `inactive(2)` state. Successful return leaves the object in the `invalid(10)` state.

tuxTsrvrBaseSrvId

Syntax

`INTEGER (1..30001)`

Access

read-only

Description

Base server identifier. For servers with a `tuxTsrvrMax` object value of 1, this object is always the same as `tuxTsrvrId`. However, for servers with a `tuxTsrvrMax` value of greater than 1, this object indicates the base server identifier for the set of servers configured identically.

tuxTsrvrClOpt

Syntax

`DisplayString` (`SIZE`(*`0..256`*))

Access

read-write

Description

Command line options to be passed to server when it is activated. See the `servopts`(5) manual page for details.

Note: Run-time modifications to this object do not affect a running server.

tuxTsrvrEnvFile

Syntax

`DisplayString` (`SIZE`(*`0..256`*)) (up to 78 bytes for Oracle Tuxedo 8.0 or earlier)

Access

read-write

Description

Server specific environment file. See `tuxTmachineEnvFile` for a complete discussion of how this file is used to modify the environment.

Note: Run-time modifications to this object do not affect a running server.

tuxTsrvrGrace

Syntax

`INTEGER`

Access

read-write

Description

The period of time, in seconds, over which the `tuxTsrvrMaxgen` object limit applies. The `tuxTsrvrGrace` value is meaningful only for restartable servers, that is, if the `tuxTsrvrRestart` object is set to `yes(1)`. When a restarting server would exceed the `tuxTsrvrMaxgen` limit but the `tuxTsrvrGrace` period has expired, the system resets the current generation (`tuxTsrvrGeneration`) to 1 and resets the initial boot time (`tuxTsrvrTimeStart`) to the current time. A value of 0 for this object indicates that a server should always be restarted.

Note that servers sharing a request queue (that is, equal values for `tuxTsrvrRqAddr`) should have equal values for this object. If they do not, then the first server activated establishes the run-time value associated with all servers on the queue.

Note: Run-time modifications to this object affect a running server and all other active servers with which it is sharing a request queue. However, only the selected server's configuration parameter is modified. Thus, the behavior of the application depends on the order of boot in subsequent activations unless the administrator ensures that all servers sharing a queue have the same value for this object.

tuxTsrvrMaxgen

Syntax

`INTEGER (0..256)`

Access

read-write

Description

Number of generations allowed for a restartable server (`tuxTsrvrRestart == yes(1)`) over the specified grace period (`tuxTsrvrGrace`). The initial activation of the server counts as one generation and each restart also counts as one. Processing after the maximum generations is exceeded is discussed above with respect to `tuxTsrvrGrace`.

Note that servers sharing a request queue (that is, equal values for `tuxTsrvrRqAddr`) should have equal values for this object. If they do not, then the first server activated establishes the run-time value associated with all servers on the queue.

Note: Run-time modifications to this object affect a running server and all other active servers with which it is sharing a request queue. However, only the selected server's configuration parameter is modified. Thus, the behavior of the application depends on the order of boot in subsequent activations unless the administrator ensures that all servers sharing a queue have the same value for this object.

tuxTsrvrMax

Syntax

`INTEGER (1..1001)`

Access

read-write

Description

Maximum number of occurrences of the server to be booted. Initially, `tmboot`(1) boots `tuxTsrvrMin` objects of the server, and additional objects can be started individually (by starting a particular server id) or through automatic spawning (conversational servers only). Run-time modifications to this object affect all running servers in the set of identically configured servers (see `tuxTsrvrBaseSrvId` above) as well as the configuration definition of the server.

tuxTsrvrMin

Syntax

`INTEGER (1..1001)`

Access

read-write

Description

Minimum number of occurrences of the server to be booted by `tmboot`(1). If a `tuxTsrvrRqAddr` is specified and `tuxTsrvrMin` is greater than 1, then the servers form an MSSQ set. The server identifiers for the servers are `tuxTsrvrId` up to `tuxTsrvrId + tuxTsrvrMax - 1`. All occurrences of the server have the same sequence number, as well as any other server parameters.

Note: Run-time modifications to this object do not affect a running server.

tuxTsrvrRcmd

Syntax

`DisplayString` (`SIZE(0..256)`) (up to 78 bytes for Oracle Tuxedo 8.0 or earlier)

Access

read-write

Description

Application-specified command to be executed in parallel with the system restart of an application server. This command must be an executable file.

Note that servers sharing a request queue (that is, equal values for `tuxTsrvrRqAddr`) should have equal values for this object. If they do not, then the first server activated establishes the run-time value associated with all servers on the queue.

Note: Run-time modifications to this object affect a running server and all other active servers with which it shares a request queue. However, only the selected server's configuration parameter is modified. Thus, the behavior of the application depends on the order of boot in subsequent activations unless the administrator ensures that all servers sharing a queue have the same value for this object.

tuxTsrvrRestart

Syntax

`INTEGER { yes(1) | no(2) }`

Access

read-write

Description

Restartable `yes(1)` or non-restartable `no(2)` server. If server migration is specified for this server group (`tuxTdomainOptions = migrate(2)` and `tuxTgroupLMID` with alternate site), this object must be set to `yes(1)`.

Note that servers sharing a request queue (that is, equal values for `tuxTsrvrRqAddr`) should have equal values for this object. If they do not, the first server activated establishes the run-time value associated with all servers on the queue.

Note: Run-time modifications to this object affect a running server and all other active servers with which it shares a request queue. However, only the selected server’s configuration parameter is modified. Thus, the behavior of the application depends on the order of boot in subsequent activations unless the administrator ensures that all servers sharing a queue have the same value for this object.

tuxTsrvrSequence

Syntax

`INTEGER (1..10000)`

Access

read-write

Description

Specifies when this server should be booted (`tmboot`(1)) or shutdown (`tmshutdown`(1)) relative to other servers. If two servers are given the same sequence number, it is possible for `tmboot`(1) to boot them in parallel and for `tmshutdown`(1) to shut them down in parallel. `tuxTsrvrTbl` instances added without a `tuxTsrvrSequence` object specified or with an invalid value have one generated for them that is 10,000 or more and is higher than any other automatically selected default value. Servers are booted by `tmboot`(1) in increasing order of sequence number and shutdown by `tmshutdown`(1) in decreasing order. Run-time modifications to this object affect only `tmboot`(1) and `tmshutdown`(1) and affect the order in which running servers can be shutdown by a subsequent invocation of `tmshutdown`(1).

tuxTsrvrSystemAccess

Syntax

`INTEGER { fastpath(1) | protected(2) }`

Access

read-write

Description

Mode used by Tuxedo system libraries within this server process to gain access to Tuxedo system's internal tables. See `tuxTdomainSystemAccess` for a complete discussion of this object.

Note: Run-time modifications to this object do not affect a running server.

tuxTsrvrConv

Syntax

```
INTEGER { yes(1) | no(2) }
```

Access

read-write

Description

Conversational server `yes(1)` or request/response server `no(2)`.

tuxTsrvrReplyQ

Syntax

```
INTEGER { yes(1) | no(2) }
```

Access

read-write

Description

Specifies whether to allocate a separate reply queue for the server (`tuxTsrvrReplyQ == yes(1)`). MSSQ servers that expect to receive replies should set this object to `yes(1)`.

tuxTsrvrRpPerm

Syntax

`DisplayString` (`SIZE`(4))

Access

read-write

Description

UNIX system permissions for the server's reply queue. If a separate reply queue is not allocated (`tuxTsrvrReplyQ == no(2)`), this object is ignored. The `tuxTsrvrRpPerm` value is a string representation of octal numbers starting with a leading 0 0001 through 0777.

Note: This object is a UNIX-system-specific object that cannot be returned if the platform on which the application is being run is not UNIX-based.

tuxTsrvrRqAddr

Syntax

`DisplayString` (`SIZE`(`0..30`))

Access

read-write

Description

Symbolic address of the request queue for the server. Specifying the same `tuxTsrvrRqAddr` object value for more than one server is the way multiple server, single queue (MSSQ) sets are defined. Servers with the same `tuxTsrvrRqAddr` object value must be in the same server group.

tuxTsrvrRqPerm

Syntax

`DisplayString` (`SIZE`(4))

Access

read-write

Description

UNIX system permissions for the server's request queue. The `tuxTsrvrRqPerm` value is a string representation of octal numbers starting with a leading 0 0001 through 0777.

Note: This object is a UNIX-system-specific object that cannot be returned if the platform on which the application is being run is not UNIX-based.

tuxTsrvrGeneration

Syntax

```
INTEGER (1..32768)
```

Access

read-only

Description

Generation of the server. When a server is initially booted via `tmboot`(1) or activated through the SNMP agent, its generation is set to 1. Each time the server dies abnormally and is restarted, its generation is incremented. Note that when `tuxTsrvrMaxgen` is exceeded and `tuxTsrvrGrace` has expired, the server is restarted with the generation reset to 1.

tuxTsrvrPid

Syntax

```
INTEGER
```

Access

read-only

Description

UNIX system process identifier for the server. Note that this value cannot be a unique value since servers can be located on different machines, allowing for duplication of process identifiers.

Note: This object is a UNIX-system-specific object that cannot be returned if the platform on which the application is being run is not UNIX-based.

tuxTsrvrRpid

Syntax

`INTEGER`

Access

read-only

Description

UNIX system message queue identifier for the server's reply queue. If a separate reply queue is not allocated (`tuxTsrvrReplyQ == no(2)`), the `tuxTsrvrRqid` value is the same as the `tuxTsrvrRqId` value.

Note: This object is a UNIX-system-specific object that cannot be returned if the platform on which the application is being run is not UNIX-based.

tuxTsrvrRqId

Syntax

`INTEGER`

Access

read-only

Description

UNIX system message queue identifier for the server's request queue. If a separate reply queue is not allocated (`tuxTsrvrReplyQ == no(2)`), the `tuxTsrvrRpId` value is the same as the `tuxTsrvrRpid` value.

Note: This object is a UNIX-system-specific object that cannot be returned if the platform on which the application is being run is not UNIX-based.

tuxTsrvrTimeRestart

Syntax

`INTEGER`

Access

read-only

Description

Time, in seconds, since 00:00:00 UTC, January 1, 1970, as returned by the `time`(2) system call on local host, when the server was last started or restarted.

tuxTsrvrTimeStart

Syntax

`INTEGER`

Access

read-only

Description

Time, in seconds, since 00:00:00 UTC, January 1, 1970, as returned by the `time`(2) system call on local host, when the server was first started. Restarts of the server do not reset this value; however, if `tuxTsrvrMaxgen` is exceeded and `tuxTsrvrGrace` is expired, this object is reset to the time of the restart.

tuxTsrvrMinDispatchThreads

Syntax

`INTEGER (1..999)`

Access

read-only

Description

Specifies the number of server dispatch threads started on the initial server boot. This object is effective only if the server has been built with the `buildserver -t` command.

The separate dispatcher thread that is used when the value of `tuxTsrvrMaxDispatchThreads` is greater than one is not counted as part of the `tuxTsrvrMinDispatchThreads` value. The value of `tuxTsrvrMinDispatchThreads` must be less than the value of `tuxTsrvrMaxDispatchThreads`. If this object is not specified, the default is 0.

tuxTsrvrMaxDispatchThreads

Syntax

`INTEGER (0..999)`

Access

read-only

Description

Specifies the maximum number of concurrently dispatched threads that each server process can spawn. This object is effective only if the server has been built with the `buildserver -t` command.

If `tuxTsrvrMaxDispatchThreads` is greater than one, a separate dispatcher thread is used and does not count against this limit. The value of `tuxTsrvrMinDispatchThreads` must be less than the value of `tuxTsrvrMaxDispatchThreads`. If this object is not specified, the default is 1.

tuxTsrvrThreadStackSize

Syntax

`INTEGER (0..2147483647)`

Access

read-write

Description

If this object is not specified or if the value specified is 0, the operating system default is used. This option affects the server only when a value greater than 1 is specified for `tuxTsrvrMaxDispatchThreads`.

tuxTsrvrTblExt

The `tuxTsrvrTblExt` group is an extension of `tuxTsrvrTbl`. Objects in this table are only accessible through a Tuxedo SNMP agent installed on the local machine.

Object Name	Object ID
`tuxTsrvrIdExt`	.1.3.6.1.4.1.140.300.20.2.1.1
`tuxTsrvrGrpNoExt`	.1.3.6.1.4.1.140.300.20.2.1.2
`tuxTsrvrNumConv`	.1.3.6.1.4.1.140.300.20.2.1.3
`tuxTsrvrNumDeque`	.1.3.6.1.4.1.140.300.20.2.1.4
`tuxTsrvrNumEnque`	.1.3.6.1.4.1.140.300.20.2.1.5
`tuxTsrvrNumPost`	.1.3.6.1.4.1.140.300.20.2.1.6
`tuxTsrvrNumReq`	.1.3.6.1.4.1.140.300.20.2.1.7
`tuxTsrvrNumSubscribe`	.1.3.6.1.4.1.140.300.20.2.1.8
`tuxTsrvrNumTran`	.1.3.6.1.4.1.140.300.20.2.1.9
`tuxTsrvrTranAbt`	.1.3.6.1.4.1.140.300.20.2.1.10
`tuxTsrvrTranCmt`	.1.3.6.1.4.1.140.300.20.2.1.11
`tuxTsrvrTotReqC`	.1.3.6.1.4.1.140.300.20.2.1.12
`tuxTsrvrTotWorkL`	.1.3.6.1.4.1.140.300.20.2.1.13
`tuxTsrvrCltLmid`	.1.3.6.1.4.1.140.300.20.2.1.14
`tuxTsrvrCltPid`	.1.3.6.1.4.1.140.300.20.2.1.15
`tuxTsrvrCltReply`	.1.3.6.1.4.1.140.300.20.2.1.16
`tuxTsrvrCmtRet`	.1.3.6.1.4.1.140.300.20.2.1.17
`tuxTsrvrCurConv`	.1.3.6.1.4.1.140.300.20.2.1.18
`tuxTsrvrCurReq`	.1.3.6.1.4.1.140.300.20.2.1.19
`tuxTsrvrCurService`	.1.3.6.1.4.1.140.300.20.2.1.20
`tuxTsrvrCurTime`	.1.3.6.1.4.1.140.300.20.2.1.21
`tuxTsrvrLastGrp`	.1.3.6.1.4.1.140.300.20.2.1.22

Object Name	Object ID
`tuxTsrvrSvcTimeOut`	.1.3.6.1.4.1.140.300.20.2.1.23
`tuxTsrvrTimeLeft`	.1.3.6.1.4.1.140.300.20.2.1.24
`tuxTsrvrTranLev`	.1.3.6.1.4.1.140.300.20.2.1.25
`tuxTsrvrStateExt`	.1.3.6.1.4.1.140.300.20.2.1.26
`tuxTsrvrGrpExt`	.1.3.6.1.4.1.140.300.20.2.1.27
`tuxSrvrCurObjsExt` (Tuxedo 8.0 or later)	.1.3.6.1.4.1.140.300.20.2.1.32
`tuxSrvrCurInterfaceExt` (Tuxedo 8.0 or later)	.1.3.6.1.4.1.140.300.20.2.1.37
`tuxTsrvrCurDispatchThreads`	.1.3.6.1.4.1.140.300.20.2.1.100
`tuxTsrvrHwDispatchThreads`	.1.3.6.1.4.1.140.300.20.2.1.110
`tuxTsrvrNumDispatchThreads`	.1.3.6.1.4.1.140.300.20.2.1.120

tuxTsrvrIdExt

Syntax

`INTEGER (1..30001)`

Access

read-only

Description

Unique (within the server group) server identification number.

tuxTsrvrGrpNoExt

Syntax

`INTEGER (1..30000)`

Access

read-only

Description

Group number associated with this server's group.

tuxTsrvrNumConv

Syntax

`INTEGER`

Access

read-only

Description

Number of conversations initiated by this server through `tpconnect`(3).

tuxTsrvrNumDeque

Syntax

`INTEGER`

Access

read-only

Description

Number of dequeue operations initiated by this server through `tpdequeue`(3).

tuxTsrvrNumEnque

Syntax

`INTEGER`

Access

read-only

Description

Number of enqueue operations initiated by this server through `tpenqueue`(3).

tuxTsrvrNumPost

Syntax

`INTEGER`

Access

read-only

Description

Number of postings initiated by this server through `tppost`(3).

tuxTsrvrNumReq

Syntax

`INTEGER`

Access

read-only

Description

Number of requests made by this server through `tpcall`(3) or `tpacall`(3).

tuxTsrvrNumSubscribe

Syntax

`INTEGER`

Access

read-only

Description

Number of subscriptions made by this server through `tpsubscribe`(3).

tuxTsrvrNumTran

Syntax

`INTEGER`

Access

read-only

Description

Number of transactions begun by this server since its last (re)start.

tuxTsrvrTranAbt

Syntax

`INTEGER`

Access

read-only

Description

Number of transactions aborted by this server since its last (re)start.

tuxTsrvrTranCmt

Syntax

`INTEGER`

Access

read-only

Description

Number of transactions committed by this server since its last (re)start.

tuxTsrvrTotReqC

Syntax

`INTEGER`

Access

read-only

Description

Total number of requests completed by this server. For conversational servers (`tuxTsrvrConv == yes(1)`), the `tuxTsrvrTotReqC` value indicates the number of completed incoming conversations. The `tuxTsrvrTotReqC` value is a run-time value that is kept across server restart but is lost at server shutdown.

tuxTsrvrTotWorkL

Syntax

`INTEGER`

Access

read-only

Description

Total workload completed by this server. For conversational servers (`tuxTsrvrConv == yes(1)`), the `tuxTsrvrTotWorkL` value indicates the workload of completed incoming conversations. The `tuxTsrvrTotWorkL` value is a run-time value that is kept across server restart but is lost at server shutdown.

tuxTsrvrCltLmid

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-only

Description

Logical machine for the initiating client or server. The initiating client or server is the process that made the service request on which the server is currently working.

tuxTsrvrCltPid

Syntax

`INTEGER`

Access

read-only

Description

UNIX system process identifier for the initiating client or server.

Note: This object is a UNIX-system-specific object that cannot be returned if the platform on which the application is being run is not UNIX-based.

tuxTsrvrCltReply

Syntax

`INTEGER { yes(1) | no(2) | null(3) }`

Access

read-only

Description

`yes(1)`
The initiating client or server expects a reply.

`no(2)`
The initiating client or server does not expect a reply.

tuxTsrvrCmtRet

Syntax

`INTEGER { complete(1) | logged(2) }`

Access

read-only

Description

The setting of the TP_COMMIT_CONTROL characteristic for this server. For details on this characteristic, see the description of the Tuxedo system ATMI function `tpscmt(3)`.

tuxTsrvrCurConv

Syntax

`INTEGER`

Access

read-only

Description

Number of conversations initiated by this server through `tpconnect`(3) that are still active.

tuxTsrvrCurReq

Syntax

`INTEGER`

Access

read-only

Description

Number of requests initiated by this server through `tpcall`(3) or `tpacall`(3) that are still active.

tuxTsrvrCurService

Syntax

`DisplayString` (`SIZE`(*`1..127`*))

Access

read-only

Description

Service name, if any, on which the server is currently working.

tuxTsrvrCurTime

Syntax

`INTEGER`

Access

read-only

Description

Current time, in seconds, since 00:00:00 UTC, January 1, 1970, as on the local host. This object can be used to compute elapsed time from the `tuxTsrvrTimeStart` and `tuxTsrvrTimeRestart` object values.

tuxTsrvrLastGrp

Syntax

`INTEGER (1..30000)`

Access

read-only

Description

Server group number (`tuxTgroupNo`) of the last service request made or conversation initiated from this server outward.

tuxTsrvrSvcTimeOut

Syntax

`INTEGER`

Access

read-only

Description

Time left in seconds, if any, for this server to process the current service request. A value of 0 for an active service indicates that no timeout processing is being done. See `tuxTsvcTimeOut` for more information.

tuxTsrvrTimeLeft

Syntax

`INTEGER`

Access

read-only

Description

Time left, in seconds, for this server to receive the reply for which it is currently waiting before it times out. This timeout can be a transactional timeout or a blocking timeout.

tuxTsrvrTranLev

Syntax

`INTEGER`

Access

read-only

Description

Current transaction level for this server. 0 indicates that the server is not currently involved in a transaction.

tuxTsrvrStateExt

Syntax

`INTEGER { active(1) | inactive(2) | migrating(3) | cleaning(4) | restarting(5) | suspended(6) | partitioned(7) | dead(8) }`

Access

read-only

Description

Refer to description of `tuxTsrvrState` for details.

tuxTsrvrGrpExt

Syntax

`DisplayString`

Access

read-only

Description

Name of group to which this server belongs. This object is included for readability purposes only.

tuxSrvrCurObjsExt (Tuxedo 8.0 or later)

Syntax

`INTEGER`

Access

read-only

Description

The number of entries in use in the bulletin board object table for this server.

tuxSrvrCurInterfaceExt (Tuxedo 8.0 or later)

Syntax

`DisplayString` (`SIZE`(*1..128*))

Access

read-only

Description

The interface name of the interface currently active in this server.

tuxTsrvrCurDispatchThreads

Syntax

`INTEGER`

Access

read-only

Description

Current number of active service dispatch threads for this server.

tuxTsrvrHwDispatchThreads

Syntax

`INTEGER`

Access

read-only

Description

Highest number of active service dispatch threads created for this server since its last restart. This number can differ from the number of service calls, because an administrator can specify parameters that control the caching of idle service threads.

tuxTsrvrNumDispatchThreads

Syntax

`INTEGER`

Access

read-only

Description

Total number of active service dispatch threads created for this server since its last restart.

tuxTsvcTbl

The `tuxTsvcTbl` group contains objects that represent configuration characteristics of services within an application. The object values identify and characterize configured services. A `tuxTsvcTbl` object provides activation time configuration objects for services not specifically configured as part of the `tuxTsvcGrp` group.

The index into this table is `tuxTsvcName`. Objects in this group are only accessible through a Tuxedo SNMP agent installed on the local machine. To create a new row in the table, it is necessary to issue a `SET` request for a non-existing row in the table.

Object Name	Object ID
`tuxTsvcName`	.1.3.6.1.4.1.140.300.10.1.1.1
`tuxTsvcType`	.1.3.6.1.4.1.140.300.10.1.1.2
`tuxTsvcState`	.1.3.6.1.4.1.140.300.10.1.1.3
`tuxTsvcAutoTran`	.1.3.6.1.4.1.140.300.10.1.1.4
`tuxTsvcLoad`	.1.3.6.1.4.1.140.300.10.1.1.5
`tuxTsvcPrio`	.1.3.6.1.4.1.140.300.10.1.1.6
`tuxTsvcTimeOut`	.1.3.6.1.4.1.140.300.10.1.1.7
`tuxTsvcTranTime`	.1.3.6.1.4.1.140.300.10.1.1.8
`tuxTsvcBufType`	.1.3.6.1.4.1.140.300.10.1.1.9

Object Name	**Object ID**
`tuxTsvcRoutingName`	.1.3.6.1.4.1.140.300.10.1.1.10
`tuxTsvcEncryptionRequired`	.1.3.6.1.4.1.140.300.10.1.1.20
`tuxTsvcSignatureRequired`	.1.3.6.1.4.1.140.300.10.1.1.30

tuxTsvcName

Syntax

`DisplayString` (`SIZE`(*`1..127`*))

Access

read-write

Description

Service name.

Note: This object can be set only during row creation.

tuxTsvcType

Syntax

`INTEGER { app(1) | callable(2) | system(3) | unknown(4) }`

Access

read-only

Description

Type of service.

`app(1)`

Indicates an application-defined service name.

`callable(2)`

Indicates a system-provided callable service.

`system(3)`

Indicates a system-provided and system-callable service. `system(3)` services are not available to application clients and servers for direct access.

tuxTsvcState

Syntax

`INTEGER { active(1) | inactive(2) | invalid(3) }`

Access

read-write

Description

The values for `GET` and `SET` operations are as follows:

`GET: {active(1)|inactive(2)}`

A `GET` operation retrieves configuration information for the selected `tuxTsvcTbl` instance(s). The following states indicate the meaning of a `tuxTsvcState` returned in response to a `GET` request. States not listed are not returned.

`active(1)`

`tuxTsvcTbl` instance is defined and at least one `tuxTsvcGrp` object with a matching `tuxTsvcName` value is active.

`inactive(2)`

`tuxTsvcTbl` instance is defined and no `tuxTsvcGrp` object with a matching `tuxTsvcName` value is active.

`SET: invalid(3)`

A `SET` operation updates configuration information for the selected `tuxTsvcTbl` instance. The following state indicates the meaning of a `tuxTsvcState` set in a `SET` request. States not listed cannot be set.

`invalid(3)`

Delete `tuxTsvcTbl` instance for application. State change is allowed only when the service is in the `inactive(2)` state. Successful return leaves the object in the `invalid(3)` state.

tuxTsvcAutoTran

Syntax

`INTEGER { yes(1) | no(2) }`

Access

read-write

Description

Automatically begin a transaction.

`yes(1)`
If the request is not already in transaction mode when a service request message is received for this service, automatically begin a transaction.

`no(2)`
Do not automatically begin a transaction

Note: Run-time updates to this object are not reflected in active `tuxTsvcGrp` objects.

tuxTsvcLoad

Syntax

`INTEGER (1..32768)`

Access

read-write

Description

This `tuxTsvcTbl` object imposes the indicated load on the system. Service loads are used for load balancing purposes, that is, queues with higher enqueued workloads are less likely to be chosen for a new request. Service loads have meaning only if the `tuxTdomainLoadBalance` is set to `yes(1)`.

Note: Run-time updates to this object are not reflected in active `tuxTsvcGrp` objects.

tuxTsvcPrio

Syntax

`INTEGER (1..100)`

Access

read-write

Description

This `tuxTsvcTbl` object has the indicated dequeuing priority. If multiple service requests are waiting on a queue for servicing, the higher priority requests are serviced first.

Note: Run-time updates to this object are not reflected in active `tuxTsvcGrp` objects.

tuxTsvcTimeOut

Syntax

`INTEGER`

Access

read-write

Description

Time limit (in seconds) for processing requests for this service name. Servers processing service requests for this service are abortively terminated (`kill -9`) if they exceed the specified time limit in processing the request. A value of 0 for this object indicates that the service should not be abortively terminated.

Note: Run-time updates to this object are not reflected in active `tuxTsvcGrp` objects.

tuxTsvcTranTime

Syntax

`INTEGER`

Access

read-write

Description

Transaction timeout value (in seconds) for transactions automatically started for this `tuxTsvcTbl` object. Transactions are started automatically when a request not in transaction mode is received and the `tuxTsvcAutoTran` object value for the service is `yes(1)`.

Note: Run-time updates to this object are not reflected in active `tuxTsvcGrp` objects.

tuxTsvcBufType

Syntax

`DisplayString` (`SIZE`(*`1..256`*))

Access

read-write

Description

`type1[:subtype1[,subtype2 . . . ]][;type2[:subtype3[,. . . ]]] . . .`

List of types and subtypes of data buffers accepted by this service. A maximum of 32 type/subtype combinations are allowed. Types of data buffers provided with Tuxedo system are FML (for FML buffers), VIEW, X_C_TYPE, or X_COMMON (for FMLviews), STRING (for NULL terminated character arrays), and CARRAY or X_OCTET (for a character array that is neither encoded nor decoded during transmission). Of these types, only VIEW, X_C_TYPE, and X_COMMON have subtypes. A VIEW subtype gives the name of the particular VIEW expected by the service. Application types and subtypes can also be added (see `tuxtypes`(5)). For a buffer type that has subtypes, "*" can be specified for the subtype to indicate that the service accepts all subtypes for the associated buffer type.

A single service can only interpret a fixed number of buffer types, namely those found in its buffer type switch (see `tuxtypes`(5)). If the `tuxTsvcBufType` value is set to ALL, that service accepts all buffer types found in its buffer type switch.

A type name can be 8 characters or less in length and a subtype name can be 16 characters or less in length. Note that type and subtype names should not contain semicolon, colon, comma, or asterisk characters.

Note: The `tuxTsvcBufType` value represents the buffer types that must be supported by each and every instance of an application service with this service name. Since this object value is processed at service activation time, updates to this object are allowed only when there are no active `tuxTsvcGrp` objects with matching service names.

tuxTsvcRoutingName

Syntax

`DisplayString` (`SIZE`(*`0..15`*))

Access

read-write

Description

This `tuxTsvcTbl` object has the indicated routing criteria name. Active updates to this object are reflected in all associated `tuxTsvcGrp` objects.

tuxTsvcEncryptionRequired

Syntax

`INTEGER { yes(1) | no(2) }`

Access

read-write

Description

If set to `yes`, every application service in this group requires an encrypted input message buffer.

tuxTsvcSignatureRequired

Syntax

`INTEGER { yes(1) | no(2) }`

Access

read-write

Description

If set to `yes`, every application service in this group requires a valid digital signature on its input message buffer.

tuxTsvcGrp

The `tuxTsvcGrp` group contains objects that represent configuration and run-time characteristics of services/groups within an application. The object values identify and characterize configured services/groups as well as provide run-time tracking of statistics and resources associated with each object.

Both `tuxTsvcTbl` and `tuxTsvcGrp` define activation time object values for service names within the application. When a new service is activated (advertised), either due to initial activation of a server or due to a call to `tpadvertise`(3), the following hierarchy exists for determining the object values to be used at service startup time.

1. If a matching configured `tuxTsvcGrp` entry exists (matching service name and server group), the objects defined in that object are used to initially configure the advertised service.
2. Otherwise, if a matching configured `tuxTsvcTbl` entry exists (matching service name), the objects defined in that object are used to initially configure the advertised service.
3. Otherwise, if any configured `tuxTsvcGrp` entries are found with matching service name value, the first one found is used to initially configure the advertised service.
4. If none of the preceding cases is used, the system defaults for service objects are used to initially configure the advertised service.

Objects in this group are only accessible through a Tuxedo SNMP agent installed on the local machine.

To create a new row in the table, it is necessary to issue a `SET` request that specifies at least `tuxTsvcGrpName`. The combination of values specified for `tuxTsvcGrpName` and `tuxTsvcGrpSvcName` in the `SET` request should not correspond to an existing row. If the value of `tuxTsvcSrvrId` is zero in the `SET` request, the service entry is configured but not activated (advertised). If `tuxTsvcSrvrId` is not set to zero, the service is activated using the value of `tuxTsvcSrvrId` to identify the server instance.

Object Name	Object ID
`tuxTsvcGrpSvcName`	.1.3.6.1.4.1.140.300.10.2.1.1
`tuxTsvcGrpName`	.1.3.6.1.4.1.140.300.10.2.1.2
`tuxTsvcGrpNo`	.1.3.6.1.4.1.140.300.10.2.1.3
`tuxTsvcGrpState`	.1.3.6.1.4.1.140.300.10.2.1.4

Object Name	**Object ID**
`tuxTsvcGrpAutoTran`	.1.3.6.1.4.1.140.300.10.2.1.5
`tuxTsvcGrpLoad`	.1.3.6.1.4.1.140.300.10.2.1.6
`tuxTsvcGrpPrio`	.1.3.6.1.4.1.140.300.10.2.1.7
`tuxTsvcGrpSvcTimeOut`	.1.3.6.1.4.1.140.300.10.2.1.8
`tuxTsvcGrpTranTime`	.1.3.6.1.4.1.140.300.10.2.1.9
`tuxTsvcSrvrLmid`	.1.3.6.1.4.1.140.300.10.2.1.10
`tuxTsvcSrvrRqAddr`	.1.3.6.1.4.1.140.300.10.2.1.11
`tuxTsvcSrvrId`	.1.3.6.1.4.1.140.300.10.2.1.12
`tuxTsvcrName`	.1.3.6.1.4.1.140.300.10.2.1.13
`tuxTsvcSrvrNcompleted`	.1.3.6.1.4.1.140.300.10.2.1.14
`tuxTsvcSrvrNqueued`	.1.3.6.1.4.1.140.300.10.2.1.15

tuxTsvcGrpSvcName

Syntax

`DisplayString` (`SIZE`(*`1..15`*))

Access

read-only

Description

Service name.

tuxTsvcGrpName

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-only

Description

Server group name. Server group names cannot contain an asterisk.

tuxTsvcGrpNo

Syntax

`INTEGER (1..29999)`

Access

read-write

Description

Server group number.

tuxTsvcGrpState

Syntax

`INTEGER { active(1) | inactive(2) | invalid(3) }`

Access

read-write

Description

The values for `GET` and `SET` operations are as follows:

`GET: active(1)|inactive(2)`

A `GET` operation retrieves configuration information for the selected `tuxTsvcGrpState` instance(s). The following states indicate the meaning of a `tuxTsvcGrpState` returned in response to a `GET` request. States not listed are not returned.

`active(1)`

At least one instance is active, suspended, or partitioned.

`inactive(2)`

`tuxTsvcGrp` instance defined and inactive.

`SET: invalid(3)`

A `SET` operation removes the corresponding `tuxTsvcGrp` instance. When a `tuxTsvcGrp` instance is deleted it also removes the associated `tuxTsvcSrvr` instances that correspond to server instances that are a part of the group advertising this service. This transition is permissible only in `inactive(2)` state.

tuxTsvcGrpAutoTran

Syntax

`INTEGER { yes(1) | no(2) }`

Access

read-write

Description

Automatically begin a transaction (`yes(1)`) when a service request message is received for this service if the request is not already in transaction mode.

tuxTsvcGrpLoad

Syntax

`INTEGER (1..32767)`

Access

read-write

Description

This `tuxTsvcGrp` instance imposes the indicated load on the system. Service loads are used for load balancing purposes, that is, queues with higher enqueued workloads are less likely to be chosen for a new request.

tuxTsvcGrpPrio

Syntax

`INTEGER (1..100)`

Access

read-write

Description

This `tuxTsvcGrp` object has the indicated dequeuing priority. If multiple service requests are waiting on a queue for servicing, the higher priority requests are serviced first.

tuxTsvcGrpSvcTimeOut

Syntax

`INTEGER`

Access

read-write

Description

Time limit (in seconds) for processing requests for this service name. Servers processing service requests for this service are abortively terminated (`kill -9`) if they exceed the specified time limit in processing the request. A value of 0 for this object indicates that the service should not be abortively terminated.

tuxTsvcGrpTranTime

Syntax

`INTEGER`

Access

read-write

Description

Transaction timeout value (in seconds) for transactions automatically started for this `tuxTsvcGrp` instance. Transactions are started automatically when a request not in transaction mode is received and the `tuxTsvcGrpAutoTran` object value for the service is `yes(1)`.

tuxTsvcSrvrLmid

Syntax

`DisplayString` (`SIZE(1..30)`)

Access

read-only

Description

Current logical machine on which an active server that offers this service is running.

tuxTsvcSrvrRqAddr

Syntax

`DisplayString` (`SIZE(1..30)`)

Access

read-only

Description

Symbolic address of the request queue for an active server that offers this service. See `tuxTsrvrRqAddr` for more information on this object.

tuxTsvcSrvrId

Syntax

`INTEGER (1..30000)`

Access

read-write

Description

Server ID of which the service is a part. The user can also set the value of this object to activate (advertise) one or more `tuxTsvcGrp` instances. The value provided to set this object is used to activate another instance of `tuxTsvcGrp`.

tuxTsvcrName

Syntax

`DisplayString` (`SIZE`(*`1..127`*))

Access

read-write

Description

Function name within the associated server assigned to process requests for this service. When this object is specified, the `tuxTsvcGrp` instance is activated (advertised). The user needs to specify the server ID of the corresponding server instance (`tuxTsvcSrvrId`) in the SNMP index. This object can be updated only during row creation.

tuxTsvcSrvrNcompleted

Syntax

`INTEGER`

Access

read-only

Description

Number of service requests completed with respect to the retrieved active or suspended instance since it was activated (advertised).

Note: The `tuxTsvcSrvrNcompleted` value is returned only when `tuxTdomainLoadBalance` is equal to `yes(1).`

tuxTsvcSrvrNqueued

Syntax

`INTEGER (0..32767)`

Access

read-only

Description

Number of requests currently enqueued to this service. The `tuxTsvcSrvrNqueued` value is incremented at enqueue time and decremented when the server dequeues the request.

Note: The `tuxTsvcSrvrNqueued` value is returned only when `tuxTdomainModel` is set to `single-machine(1)` and `tuxTdomainLoadBalance` is set to `yes(1)`.

tuxTlistenTbl

The `tuxTlistenTbl` group contains objects that represent run-time characteristics of Tuxedo listener processes for a distributed application.

Object Name	Object ID
`tuxTlistenLmid`	.1.3.6.1.4.1.140.300.21.1.1.1
`tuxTlistenState`	.1.3.6.1.4.1.140.300.21.1.1.2

tuxTlistenLmid

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-only

Description

Logical machine identifier.

tuxTlistenState

Syntax

`INTEGER { inactive(2) | active(1) }`

Access

read-only

Description

The values for `GET` and `SET` operations are as follows:

`GET: {active(1)|inactive(2)}`
A `GET` operation retrieves run-time information for the selected `tuxTlistenTbl` instance(s). The following states indicate the meaning of a `tuxTlistenState` returned in response to a `GET` request. States not listed are not returned.

`active(1)`
`tuxTlistenTbl` instance active.

`inactive(2)`
`tuxTlistenTbl` instance not active.

tuxTranTbl

The `tuxTranTbl` group contains objects that represent run-time characteristics of active transactions within the application. The following objects comprise the index for rows in this table: `tuxTranIndx1`, `tuxTranIndx2`, `tuxTranIndx3`, `tuxTranIndx4`, `tuxTranIndx5`. Objects in this table are accessible only through a Tuxedo SNMP agent running on the local machine.

Object Name	Object ID
`tuxTranCoordLmid`	.1.3.6.1.4.1.140.300.23.1.1.1
`tuxTpTranId`	.1.3.6.1.4.1.140.300.23.1.1.2
`tuxTranXid`	.1.3.6.1.4.1.140.300.23.1.1.3
`tuxTranIndx1`	.1.3.6.1.4.1.140.300.23.1.1.4
`tuxTranIndx2`	.1.3.6.1.4.1.140.300.23.1.1.5
`tuxTranIndx3`	.1.3.6.1.4.1.140.300.23.1.1.6
`tuxTranIndx4`	.1.3.6.1.4.1.140.300.23.1.1.7
`tuxTranIndx5`	.1.3.6.1.4.1.140.300.23.1.1.8
`tuxTranState`	.1.3.6.1.4.1.140.300.23.1.1.9
`tuxTranTimeOut`	.1.3.6.1.4.1.140.300.23.1.1.10

Object Name	Object ID
`tuxTranGrpCnt`	.1.3.6.1.4.1.140.300.23.1.1.11
`tuxTranGrpIndex`	.1.3.6.1.4.1.140.300.23.1.1.12
`tuxTranGrpNo`	.1.3.6.1.4.1.140.300.23.1.1.13
`tuxTranGstate`	.1.3.6.1.4.1.140.300.23.1.1.14

tuxTranCoordLmid

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-only

Description

Logical machine identifier of the server group responsible for coordinating the transaction.

tuxTpTranId

Syntax

`DisplayString` (`SIZE`(*`2..78`*))

Access

read-only

Description

Transaction identifier as returned from `tpsuspend`(3) mapped to a string representation. The data in this field should not be interpreted directly by the user except for equality comparison.

tuxTranXid

Syntax

`DisplayString` (`SIZE`(*`2..78`*))

Access

read-only

Description

Transaction identifier as returned from `tx_info`(3) mapped to a string representation. The data in this field should not be interpreted directly by the user except for equality comparison.

tuxTranIndx1

Syntax

`INTEGER`

Access

read-only

Description

This number is purely for unique indexing of this table.

tuxTranIndx2

Syntax

`INTEGER`

Access

read-only

Description

This number is purely for unique indexing of this table.

tuxTranIndx3

Syntax

`INTEGER`

Access

read-only

Description

This number is purely for unique indexing of this table.

tuxTranIndx4

Syntax

`INTEGER`

Access

read-only

Description

This number is purely for unique indexing of this table.

tuxTranIndx5

Syntax

`INTEGER`

Access

read-only

Description

This number is purely for unique indexing of this table.

tuxTranState

Syntax

```
INTEGER { active(1) | abort-only(2) | aborted(3) | com-called(4) |ready(5)
| decided(6) | suspended(7) }
```

Access

read-write

Description

The values for `GET` and `SET` operations are as follows:

`GET: active(1)|abort-only(2)|aborted(3)|com-called(4)|ready(5)|decided(6)|suspended(7)`

A `GET` operation retrieves run-time information for the selected `tuxTranTbl` instance(s). The following states indicate the meaning of a `tuxTranState` object. States not listed are not returned. Note that distinct objects pertaining to the same global transaction (equivalent transaction identifiers) can indicate differing states. In general, the state indicated on the coordinator's site (`tuxTranCoordLmid`) indicates the true state of the transaction. The exception is when a noncoordinator site notices a condition that transitions the transaction state to `abort-only(2)`. This transition is eventually propagated to the coordinator site and results in the rollback of the transaction, but this change cannot be immediately reflected on the coordinator site.

`active(1)`

The transaction is active.

`abort-only(2)`

The transaction has been identified for rollback on the retrieval site.

`aborted(3)`

The transaction has been identified for rollback and rollback has been initiated on the retrieval site.

`com-called(4)`

The initiator of the transaction has called `tpcommit`(3) and the first phase of two-phase commit has begun on the retrieval site.

`ready(5)`

All of the participating groups on the retrieval site have successfully completed the first phase of two-phase commit and are ready to be committed.

`decided(6)`

The second phase of the two-phase commit has begun on the retrieval site.

`suspended(7)`

The initiator of the transaction has suspended processing on the transaction. Note that this state is returned from the initiator's site only.

`SET: aborted(3)`

A `SET` operation updates run-time information for the selected `tuxTranTbl` instance. The following state indicates the meaning of a `tuxTranState` set in a `SET` request. States not listed cannot be set.

`aborted(3)`

Abort the `tuxTranTbl` instance for the application. State change is allowed only when the transaction is in the `active(1)`, `abort-only(2)`, or `com-called(4)` state. Cannot be accompanied by a change to `tuxTranGstate`. Successful return leaves the object in the `aborted(3)` state.

tuxTranTimeOut

Syntax

`INTEGER`

Access

read-only

Description

Time left (in seconds) before the transaction times out on the retrieval site. Note that the `tuxTranTimeOut` value is returned only when the transaction state is `active(1)`.

tuxTranGrpCnt

Syntax

`INTEGER`

Access

read-only

Description

Number of groups identified as participants in the transaction by the information returned from the retrieval site.

tuxTranGrpIndex

Syntax

`INTEGER`

Access

read-only

Description

Index of the first group-specific object values (`tuxTranGrpNo` and `tuxTranGstate`) corresponding to this object.

tuxTranGrpNo

Syntax

`INTEGER`

Access

read-only

Description

Group number of the participating group.

tuxTranGstate

Syntax

```
INTEGER { active(1) | aborted(2) | rd-only(3) | ready(4) | hcommit(5) |
habort(6) | done(7) | pre-prepare(8) | post-abort(9) | post-commit(10) |
unknown(11) )
```

Access

read-write

Description

The values for `GET` and `SET` operations are as follows:

`GET: active(1)|aborted(2)|rd-only(3)|ready(4)|hcommit(5)|habort(6) |done(7)`

A `GET` operation retrieves run-time information for the selected `tuxTranTbl` instance(s) pertaining to the indicated group. The following states indicate the meaning of a `tuxTranGstate` returned in response to a `GET` request. States not listed are not returned. Note that distinct objects pertaining to the same global transaction (equivalent transaction identifiers) can indicate differing states for individual groups. In general, the state indicated on the group's site indicates the true state of the group's participation in the transaction. The exception is when the coordinator site determines that the transaction should abort and sets each participant group state to `aborted(2)`. This transition is propagated to the group's site and results in the rollback of the group's work in the transaction, but cannot be reflected immediately

`active(1)`

The transaction is active in the indicated group.

`aborted(2)`

The transaction has been identified for rollback and rollback has been initiated for the indicated group.

`rd-only(3)`

The group has successfully completed the first phase of two-phase commit and has performed only read operations on the resource manager, thus making it unnecessary to perform the second phase of commit for this group.

`ready(4)`

The group has successfully completed the first phase of two-phase commit and is ready to be committed.

`hcommit(5)`

The group has been heuristically committed. This state might or might not agree with the final resolution of the transaction.

`habort(6)`

The group has been heuristically rolled back. This state might or might not agree with the final resolution of the transaction.

`done(7)`

This group has completed the second phase of the two-phase commit.

`pre-prepare(8)`

Indicates that the transaction group contains Tuxedo servers that have called `xa_end` (TMSUSPEND) during the course of transactional work and that commit processing is beginning. This state exists until either (1) all servers that called `xa_end` (TMSUSPEND) have caused a call to `xa_end` (TMSUCCESS), at which point the group state becomes ready, or (2) one of the target servers does a rollback of the transaction, at which point the group state becomes either `post-abort(9)` or `aborted(2)`.

Note: This state is supported only for Tuxedo 8.0 or later applications.

`post-abort(9)`

Indicates that a Tuxedo server called `xa_end` (TPFAIL) and that the TMS has not yet called `xa_rollback()`. In this case, other Tuxedo servers that called `xa_end`

(TMSUSPEND) are being notified by the TMS in order to clean up their associated CORBA objects.

Note: This state is supported only for Tuxedo 8.0 or later applications.

`post-commit(10)`

This state is not implemented yet.

Note: This state is supported only for Tuxedo 8.0 or later applications.

`SET: hcommit(5)| habort(6)`

A `SET` operation updates run-time information for the first group in the originating request within the selected `tuxTranTbl` instance. The following states indicate the meaning of a `tuxTranGstate` set in a `SET` request. States not listed cannot be set. State transitions are allowed only when performed within the object representing the group's site.

`hcommit(5)`

Heuristically commit the group's work as part of the indicated transaction. State change is allowed only when `tuxTranGstate` is ready, `tuxTranState` is ready, and the indicated group is not on the coordinator's site. Successful return leaves the object in the `hcommit(5)` state.

`habort(6)`

Heuristically rollback the group's work as part of the indicated transaction. State change is allowed only when `tuxTranGstate` is `active(1)` or `ready(4)`, `tuxTranState` is `ready(4)`, and the indicated group is not on the coordinator's site. Successful return leaves the object in the `habort(6)` state.

tuxTulogTable

The `tuxTulogTable` group contains objects that represent run-time characteristics of userlog (`ULOG`) files within an application. The index into this table is `tuxTulogSerNo`. The values returned for objects in this table are controlled by the MIB control group `tuxTulogCtrl`.

Object Name	**Object ID**
`tuxTulogSerNo`	.1.3.6.1.4.1.140.300.9.1.1.1
`tuxTulogLmid`	.1.3.6.1.4.1.140.300.9.1.1.2
`tuxTulogPmid`	.1.3.6.1.4.1.140.300.9.1.1.3
`tuxTulogMmDdYy`	.1.3.6.1.4.1.140.300.9.1.1.4

Object Name	Object ID
`tuxTulogTime`	.1.3.6.1.4.1.140.300.9.1.1.5
`tuxTulogLine`	.1.3.6.1.4.1.140.300.9.1.1.6
`tuxTulogMsg`	.1.3.6.1.4.1.140.300.9.1.1.7
`tuxTulogTpTranId`	.1.3.6.1.4.1.140.300.9.1.1.8
`tuxTulogXid`	.1.3.6.1.4.1.140.300.9.1.1.9
`tuxTulogPid`	.1.3.6.1.4.1.140.300.9.1.1.10
`tuxTulogSeverity`	.1.3.6.1.4.1.140.300.9.1.1.11
`tuxTulogCat`	.1.3.6.1.4.1.140.300.9.1.1.12
`tuxTulogMsgNum`	.1.3.6.1.4.1.140.300.9.1.1.13
`tuxTulogProcName`	.1.3.6.1.4.1.140.300.9.1.1.14
`tuxTulogThreadID`	.1.3.6.1.4.1.140.300.9.1.1.20
`tuxTulogContextID`	.1.3.6.1.4.1.140.300.9.1.1.30

tuxTulogSerNo

Syntax

`INTEGER`

Access

read-only

Description

A running serial number for the rows in `tuxTulogTable`.

tuxTulogLmid

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-only

Description

Retrieval machine logical machine identifier.

tuxTulogPmid

Syntax

`DisplayString` (`SIZE`(`1..30`))

Access

read-only

Description

Physical machine identifier.

tuxTulogMmDdYy

Syntax

`INTEGER`

Access

read-only

Description

Month, day, and year of the log file.

tuxTulogTime

Syntax

`INTEGER`

Access

read-only

Description

Time at which the message was generated.

tuxTulogLine

Syntax

`INTEGER`

Access

read-only

Description

Line number of the message in the log file.

tuxTulogMsg

Syntax

`DisplayString` (`SIZE`(*`1..256`*))

Access

read-only

Description

The entire text of the userlog message as it appears in the userlog file.

tuxTulogTpTranId

Syntax

`DisplayString` (`SIZE`(*`1..78`*))

Access

read-only

Description

Transaction identifier as returned from `tpsuspend`(3). The data in this field should not be interpreted directly by the user except for equality comparison. Messages not associated with transactions retrieve a 0-length string as the value for this object.

tuxTulogXid

Syntax

`DisplayString` (`SIZE`(*`1..78`*))

Access

read-only

Description

Transaction identifier as returned from `tx_info`(3). The data in this field should not be interpreted directly by the user except for equality comparison. Messages not associated with transactions retrieve a 0-length string as the value for this object.

tuxTulogPid

Syntax

`INTEGER`

Access

read-only

Description

Process identifier of the client or server that generated the userlog message.

tuxTulogSeverity

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-only

Description

Severity of message, if any.

tuxTulogCat

Syntax

`DisplayString (SIZE(1..30))`

Access

read-only

Description

Catalog name from which the message was derived, if any.

tuxTulogMsgNum

Syntax

`INTEGER`

Access

read-only

Description

Catalog message number, if the message was derived from a catalog.

tuxTulogProcName

Syntax

`DisplayString (SIZE(1..30))`

Access

read-only

Description

Process name of the client or server that generated the userlog message.

tuxTulogThreadID

Syntax

`INTEGER`

Access

read-only

Description

Identifier for the thread that wrote this userlog message.

tuxTulogContextID

Syntax

`INTEGER`

Access

read-only

Description

Identifier for this particular application association.

tuxTulogCtrl

The `tuxTulogCtrl` group contains objects that control the userlog (`ULOG`) messages returned by the `tuxTulogTable`.

Object Name	Object ID
`tuxTulogLmidCtrl`	.1.3.6.1.4.1.140.300.9.2.1
`tuxTulogPmidCtrl`	.1.3.6.1.4.1.140.300.9.2.2

Object Name	**Object ID**
`tuxTulogMmddyyCtrl`	.1.3.6.1.4.1.140.300.9.2.3
`tuxTulogTimeCtrl`	.1.3.6.1.4.1.140.300.9.2.4
`tuxTulogEndTimeCtrl`	.1.3.6.1.4.1.140.300.9.2.5
`tuxTulogLineCtrl`	.1.3.6.1.4.1.140.300.9.2.6
`tuxTulogMsgCtrl`	.1.3.6.1.4.1.140.300.9.2.7
`tuxTulogTptranIdCtrl`	.1.3.6.1.4.1.140.300.9.2.8
`tuxTulogXidCtrl`	.1.3.6.1.4.1.140.300.9.2.9
`tuxTulogPidCtrl`	.1.3.6.1.4.1.140.300.9.2.10
`tuxTulogSeverityCtrl`	.1.3.6.1.4.1.140.300.9.2.11
`tuxTulogCatCtrl`	.1.3.6.1.4.1.140.300.9.2.12
`tuxTulogMsgNumCtrl`	.1.3.6.1.4.1.140.300.9.2.13
`tuxTulogProcNameCtrl`	.1.3.6.1.4.1.140.300.9.2.14

tuxTulogLmidCtrl

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-write

Description

Logical machine ID to qualify machine from where the userlog file is read for `tuxTulogTable`. By default, the `ULOG` files from the local host are returned, in accordance to the `ULOGPFX`. To revert to the default setting, set this object to `null`.

tuxTulogPmidCtrl

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-write

Description

Physical machine name to qualify the source machine for userlog messages to be listed in `tuxTulogTable`. By default, messages from all hosts within `ULOG` files qualified by `tuxTulogLmidCtrl` are returned. To revert to the default setting, set this object to `null`.

tuxTulogMmddyyCtrl

Syntax

`INTEGER`

Access

read-write

Description

Date value to qualify userlog messages listed in `tuxTulogTable`. Default value is current date. To reset the value of the qualifier to its default, set this object to `0`.

tuxTulogTimeCtrl

Syntax

`INTEGER`

Access

read-write

Description

Starting time of the time range for which the userlog messages are listed in `tuxTulogTable`. This number is calculated as under - “hrs*10000 + mins*100 + secs”. The default value is `0`.

tuxTulogEndTimeCtrl

Syntax

`INTEGER`

Access

read-write

Description

Ending time of the time range for which the userlog messages are listed in `tuxTulogTable`. This number is calculated as under - “hrs*10000 + mins*100 + secs”. By default, the maximum value is considered. To revert to the default setting, set this object to `0`.

tuxTulogLineCtrl

Syntax

`INTEGER`

Access

read-write

Description

Beginning line number from which the userlog messages are listed in `tuxTulogTable`. By default, all messages are returned. To revert to the default setting, set this object to `0`.

tuxTulogMsgCtrl

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-write

Description

Regular expression to qualify userlog messages listed in `tuxTulogTable` on the basis of the message body. By default, all messages are listed. To revert to the default setting, set this object to `null`.

tuxTulogTptranIdCtrl

Syntax

`DisplayString` (`SIZE(`*`1..78`*`)`)

Access

read-write

Description

Value of `tuxTpTranId` to qualify messages to be displayed in the in `tuxTulogTable`. By default, all messages are returned. To revert to the default setting, set it to `null`.

tuxTulogXidCtrl

Syntax

`DisplayString` (`SIZE(`*`1..30`*`)`)

Access

read-write

Description

Value of `tuxTranXid` to qualify messages to be displayed in the in `tuxTulogTable`. By default, all messages are returned. To revert to the default setting, set it to `null`.

tuxTulogPidCtrl

Syntax

`INTEGER`

Access

read-write

Description

Value of process Id of the source to qualify messages to be displayed in the `tuxTulogTable`. By default, messages with any pid are listed. To revert to the default setting, set this object to `0`.

tuxTulogSeverityCtrl

Syntax

`DisplayString` (`SIZE(1..30)`)

Access

read-write

Description

Regular expression to qualify userlog messages to be listed in `tuxTulogTable` on the basis of message severity, if any. By default, messages with any severity are listed. To revert to the default setting, set this object to `null`.

tuxTulogCatCtrl

Syntax

`DisplayString` (`SIZE(1..30)`)

Access

read-write

Description

Regular expression to qualify userlog messages to be listed in `tuxTulogTable` on the basis of the catalog name, if any. By default, messages from all catalogs are listed. To revert to the default setting, set this object to `null`.

tuxTulogMsgNumCtrl

Syntax

`INTEGER`

Access

read-write

Description

Message number in catalog to qualify userlog messages to be listed in `tuxTulogTable`. By default, all message numbers are returned. To revert to the default setting, set this object to `0`.

tuxTulogProcNameCtrl

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-write

Description

Regular expression to qualify userlog messages to be listed in `tuxTulogTable` on the basis of the process name that generated the message, if known. By default, all messages are returned. To revert to the default setting, set this object to `null`.

tuxTnetGrpTbl

The `tuxTnetGrpTbl` group contains objects that represent application characteristics of network groups. Network groups are groups of logical machine IDs that can communicate over the network address defined in the `tuxTnetMapNaddr` object in the `tuxTnetMapTbl` table entry. For row creation, a `SET` request with `tuxTnetGrpName`, `tuxTnetGrpNo`, and `tuxTnetGrpPrio` is required. `tuxTnetGrpNo` provides the index into this table.

Object Name	**Object ID**
`tuxTnetGrpName`	.1.3.6.1.4.1.140.300.28.1.1
`tuxTnetGrpNo`	.1.3.6.1.4.1.140.300.28.1.2
`tuxTnetGrpState`	.1.3.6.1.4.1.140.300.28.1.3
`tuxTnetGrpPrio`	.1.3.6.1.4.1.140.300.28.1.4

tuxTnetGrpName

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-write

Description

Logical name of the network group. A group name is a string of printable characters and cannot contain a pound sign (#), comma (,), colon (:), or newline character. This object can be updated only during row creation.

tuxTnetGrpNo

Syntax

`INTEGER (1..8191)`

Access

read-write

Description

Group identifier of the network group. This object can be updated only during row creation.

tuxTnetGrpState

Syntax

`INTEGER { valid(1) | invalid(2) }`

Access

read-write

Description

A `GET` request retrieves configuration information for the selected `tuxTnetGrpTbl` instance (or instances). The following states indicate the meaning of the value that is returned:

`GET: valid(1)`
The instance is defined. This state is the only valid state for this object.

`SET: invalid(2)`
Delete the selected `tuxTnetGrpTbl` instance from the application.

States not listed are not returned.

tuxTnetGrpPrio

Syntax

`INTEGER (1..8191)`

Access

read-write

Description

The priority band for this network group. All network groups that have an equivalent band priority are used in parallel.

tuxTnetMapTbl

The instances in the `tuxTnetMapTbl` associate `tuxTmachineLmid`s to an instance in the `tuxTnetGrpTbl`. The rows in this table identify which logical machines belong to which network groups. For row creation, a `SET` request with at least `tuxTnetMapNaddr` is needed. The index into this table is provided by `tuxTnetMapGrpNo` and `tuxTnetMapLmid`.

Object Name	Object ID
`tuxTnetMapGrpName`	.1.3.6.1.4.1.140.300.33.1.1
`tuxTnetMapGrpNo`	.1.3.6.1.4.1.140.300.33.1.2
`tuxTnetMapLmid`	.1.3.6.1.4.1.140.300.33.1.3
`tuxTnetMapState`	.1.3.6.1.4.1.140.300.33.1.4
`tuxTnetMapNaddr`	.1.3.6.1.4.1.140.300.33.1.5
`tuxTnetMapMinEncryptBit`	.1.3.6.1.4.1.140.300.33.1.6
`tuxTnetMapMaxEncryptBit`	.1.3.6.1.4.1.140.300.33.1.7

tuxTnetMapGrpName

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-write

Description

The logical name of the network group. A group name is a string of printable characters and cannot contain a pound sign (#), comma (,), colon (:), or a newline character.

tuxTnetMapGrpNo

Syntax

`INTEGER (1..8191)`

Access

read-write

Description

Identifier for this logical network group. This object can be updated only during row creation.

tuxTnetMapLmid

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-write

Description

Logical machine name for this network mapping. This object can be updated only during row creation.

tuxTnetMapState

Syntax

`INTEGER { valid(1) | invalid(2) }`

Access

read-write

Description

A `GET` request retrieves configuration information for the selected `tuxTnetMapTbl` instance (or instances). The following states indicate the meaning of the value of `tuxTnetMapState` that is returned:

`GET: valid(1)`

The instance is defined. This state is the only valid state for this object.

`SET: invalid(2)`

Delete the selected `tuxTnetMapTbl` instance from the application. If any network links are active as a result of the mapping, they are disconnected. This disconnection can cause a state change in `tuxTBridgeTbl` instances associated with the network links.

States not listed are not returned.

tuxTnetMapNaddr

Syntax

`DisplayString` (`SIZE`(*`1..256`*)) (up to 78 bytes for Oracle Tuxedo 8.0 or earlier)

Access

read-write

Description

Specifies the complete network address to be used by the BRIDGE process placed on the logical machine as its listening address. The listening address for a BRIDGE is the means by which it is contacted by other BRIDGE processes participating in a networked application, that is, if the value of `tuxTdomainOptions` is `lan(1)`. If the string is of the form `0x`*`hex-digits`* or `\\x`*`hex-digits`*, it must contain an even number of valid hexadecimal digits. These forms are translated internally into a character array containing the hexadecimal representation of the string specified. For TCP/IP addresses, either the `//`*`hostname`*`:`*`port`* or `#.#.#.#:`*`port`* format is used.

tuxTnetMapMinEncryptBit

Syntax

`INTEGER { none(1) | 40-bit(2) | 128-bit(3) | unknown(4) }`

Access

read-write

Description

Specifies the required level of encryption when establishing a network link to this machine.

`none(1)`

No encryption

`40-bit(2)` **and** `128-bit(3)`

These values specify the encryption key length (in bits). If this minimum level of encryption cannot be met, the attempt to establish the link fails.

The default value is `none(1)`. Modifications to this object do not affect network links that have already been established.

tuxTnetMapMaxEncryptBit

Syntax

`INTEGER {none(1) | 40-bit(2) | 128-bit(3) | unknown(4) }`

Access

read-write

Description

Encryption can be negotiated up to the specified level when establishing a network link.

`none(1)`
No encryption

`40-bit(2)` **and** `128-bit(3)`
These values specify the encryption key length (in bits).

The default value is `128-bit(3)`. Modifications to this object do not affect network links that are already established.

tuxTserverCtxtTbl

The `tuxTserverCtxtTbl` group contains objects that represent configuration and run-time characteristics of individual server dispatch contexts within an application. This group is defined for both single-context and multi-context servers. For single-context servers, the object values in this group are repeated as part of the `tuxTsrvrTbl` group. The objects in this group are read-only.

These object values provide run-time tracking of statistics and resources associated with each server dispatch context.

Object Name	Object ID
`tuxTserverCtxtGrp`	.1.3.6.1.4.1.140.300.34.1.1.10
`tuxTserverCtxtServerID`	.1.3.6.1.4.1.140.300.34.1.1.20
`tuxTserverCtxtContextID`	.1.3.6.1.4.1.140.300.34.1.1.30
`tuxTserverCtxtCltLmId`	.1.3.6.1.4.1.140.300.34.1.1.40
`tuxTserverCtxtCltPid`	.1.3.6.1.4.1.140.300.34.1.1.50

Object Name	**Object ID**
`tuxTserverCtxtCltReply`	.1.3.6.1.4.1.140.300.34.1.1.60
`tuxTserverCtxtCmtRet`	.1.3.6.1.4.1.140.300.34.1.1.70
`tuxTserverCtxtCurConv`	.1.3.6.1.4.1.140.300.34.1.1.80
`tuxTserverCtxtCurReq`	.1.3.6.1.4.1.140.300.34.1.1.90
`tuxTserverCtxtCurService`	.1.3.6.1.4.1.140.300.34.1.1.100
`tuxTserverCtxtLastGrp`	.1.3.6.1.4.1.140.300.34.1.1.110
`tuxTserverCtxtSvcTimeOut`	.1.3.6.1.4.1.140.300.34.1.1.120
`tuxTserverCtxtTimeLeft`	.1.3.6.1.4.1.140.300.34.1.1.130
`tuxTserverCtxtTranLev`	.1.3.6.1.4.1.140.300.34.1.1.140

tuxTserverCtxtGrp

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-only

Description

Logical name of the server group. Server group names cannot contain an asterisk (*), comma (,), or colon (:).

tuxTserverCtxtServerID

Syntax

`INTEGER` (`SIZE`(*`1..30000`*))

Access

read-only

Description

Unique (within the server group) server identification number.

tuxTserverCtxtContextID

Syntax

`INTEGER` (`SIZE(`*`-2..29999`*`)`)

Access

read-only

Description

Identifier of this particular server context.

tuxTserverCtxtCltLmId

Syntax

`INTEGER` (`SIZE(`*`1..30`*`)`)

Access

read-only

Description

Logical machine for the initiating client or server. The initiating client or server is the process that made the service request on which the server is currently working.

tuxTserverCtxtCltPid

Syntax

`INTEGER`

Access

read-only

Description

UNIX system process identifier for the initiating client or server.

Limitation: This object is a UNIX-system-specific object that cannot be returned if the platform on which the application is being run is not UNIX-based.

tuxTserverCtxtCltReply

Syntax

```
INTEGER { yes(1) | no(2) }
```

Access

read-only

Description

The initiating client or server is expecting a reply (`yes(1)`) or is not expecting a reply (`no(2)`).

tuxTserverCtxtCmtRet

Syntax

```
INTEGER { complete(1) | logged(2) }
```

Access

read-only

Description

This object value is the setting of the TP_COMMIT_CONTROL characteristic for this server.

See the description of the Oracle Tuxedo ATMI function `tpscmt(3c)` for details on this characteristic.

tuxTserverCtxtCurConv

Syntax

```
INTEGER
```

Access

read-only

Description

Number of conversations initiated by this server through `tpconnect()` that are still active.

tuxTserverCtxtCurReq

Syntax

`INTEGER`

Access

read-only

Description

Number of requests initiated by this server through `tpcall()` or `tpacall()` that are still active.

tuxTserverCtxtCurService

Syntax

`DisplayString` (`SIZE` (*`1..127`*))

Access

read-only

Description

Service name, if any, on which the server is currently working.

tuxTserverCtxtLastGrp

Syntax

`INTEGER (1..29999)`

Access

read-only

Description

Time left (in seconds), if any, for this server to process the current service request. A value of 0 for an active service indicates that no time out processing is being done.

See `tuxTsvcTbl: tuxTsvcTimeOut` for more information.

tuxTserverCtxtSvcTimeOut

Syntax

`INTEGER`

Access

read-only

Description

Server group number (`tuxTgroupTable: tuxTgroupNo`) of the last service request made or conversation initiated from this server outward.

tuxTserverCtxtTimeLeft

Syntax

`INTEGER`

Access

read-only

Description

Time left (in seconds) for this server to receive the reply for which it is currently waiting before it will time out. This timeout can be a transactional timeout or a blocking timeout.

tuxTserverCtxtTranLev

Syntax

`INTEGER`

Access

read-only

Description

Current transaction level for this server. 0 indicates that the server is not currently involved in a transaction.

beaEventFilters

You can use the Tuxedo event filters to define a subset of Tuxedo event notifications to be generated for each Tuxedo domain being monitored. The `beaEventFilters` group consists of the following object and group (table).

Object Name	Object ID
`beaEvtFilterTblStatus`	.1.3.6.1.4.1.140.300.14.1
`beaEvtFilterTable`	.1.3.6.1.4.1.140.300.14.2

beaEvtFilterTblStatus

Syntax

`INTEGER { sync(1) | dirty(2) }`

Access

read-write

Description

When the agent starts, this object value is always `sync(1)`. If any change is done to `beaEvtFilterTable` through `SET` requests, the value of this object becomes `dirty(2)` and the changes made to `beaEvtFilterTable` do not take effect. The changes made to the `beaEvtFilterTable` take effect only when you set the value of this object to `sync(1)`. When you set the value to `sync(1)`, all changes since the last synchronization are applied to the event-processing module.

beaEvtFilterTable

The `beaEvtFilterTable` group contains objects that represent all the event filters defined for the SNMP Agent. The object values are used to determine the collection of events to be forwarded as SNMP trap notifications.

The columnar objects in the `beaEvtFilterTable` correspond to fields in the TMEVENT_FILTER entries in the Oracle SNMP Agent configuration file (`beamgr.conf`). For more detail, see "Configuration Files" in the *Oracle SNMP Agent Administration Guide*.

Note: Changes to this table are applied only when `beaEvtFilterStatus` is set to `sync(1)`.

Object Name	Object ID
`beaEvtFilterId`	.1.3.6.1.4.1.140.300.14.1.1.1
`beaEvtAgentName`	.1.3.6.1.4.1.140.300.14.1.1.2
`beaEvtExpr`	.1.3.6.1.4.1.140.300.14.1.1.3
`beaEvtFilter`	.1.3.6.1.4.1.140.300.14.1.1.4
`beaEvtFilterState`	.1.3.6.1.4.1.140.300.14.1.1.5

beaEvtFilterId

Syntax

`DisplayString` (`SIZE`(*`1..16`*))

Access

read-write

Description

A unique identifier for the event filter within the filter table.

Note: This object can be `SET` only during row creation.

beaEvtAgentName

Syntax

`DisplayString` (`SIZE` (*`1..32`*))

Access

read-only

Description

This logical agent name of the agent supporting this filter. This object is provided only for user convenience since the MIB only returns the event filters for the agent that was queried.

beaEvtExpr

Syntax

`DisplayString` (`SIZE` (*`1..255`*))

Access

read-write

Description

An event name expression, which is a regular expression. For the format of regular expressions, see reference page `tpsubscribe(3c)` in *Oracle Tuxedo ATMI C Function Reference*. For a Tuxedo system event to be forwarded as an SNMP trap, its name should match this expression. For a list of Tuxedo event names, see reference page `EVENTS(5)` in *Oracle Tuxedo File Formats, Data Descriptions, MIBs, and System Processes Reference*. The default for this object is all system events.

Examples

```
\.Sys.*
```

matches all system events. (This event name expression is the default.)

```
\.SysServer.*
```

matches all system events related to servers.

A value of `NONE` blocks all events from being forwarded by the selected agent and overrides any other filter table entries for the same logical agent name.

beaEvtFilter

Syntax

`DisplayString` (`SIZE`(`1..255`))

Access

read-write

Description

An event filter expression. Each Tuxedo event is accompanied by an FML buffer that contains pertinent information about the event. The buffer's contents are evaluated with respect to this filter, if it is present. The filter must evaluate to TRUE or the event is not forwarded.

The SNMP Agent uses this object as an argument to `tpsubscribe()`. For more information, see reference page `tpsubscribe(3c)` in *Oracle Tuxedo ATMI C Function Reference*.

Example

```
TA_EVENT_SEVERITY=='ERROR' || TA_EVENT_SEVERITY=='WARN'
```

```
TA_EVENT_SEVERITY!=='INFO'
```

```
TA_EVENT_LMID=='SITE1'
```

This filter selects events with a severity of either ERROR or WARNING.

beaEvtFilterState

Syntax

`INTEGER { active(1) | inactive(2) | invalid(3) }`

Access

read-write

Description

This object denotes the current state of the event filter instance.

`GET {active(1)|inactive(2)}`

A `GET` operation retrieves configuration and run-time information for the selected `beaEvtFilterTbl` instance(s). The following states indicate the meaning of a `beaEvtFilterState` returned in response to a `GET` request. States not listed are not returned.

`active(1)`
This filter is being used.

`inactive(2)`
This filter is not being used.

`SET {active(1)|inactive(2)|invalid(3)}`
A `SET` operation updates configuration and run-time information for the selected `beaEvtFilterTbl` instance. The following states indicate the meaning of a `beaEvtFilterState` set in a `SET` request. States not listed cannot be set.

`active(1)`
Activate the event filter. Activating the event filter can be accomplished only when the filter is in the inactive(2) state.

`inactive(2)`
Inactivate the event filter. Inactivating the event filter can be accomplished only when the filter is in the active(1) state.

`invalid(3)`
Inactivate (if active) and remove this event filter.

Domains MIB

The Domains MIB describes the interaction between Oracle Tuxedo domains. The term *access point* defines an object through which you gain access to another object. Therefore, you access a remote domain through a remote domain access point, and remote domains gain access to a local domain through a local domain access point.

The Domains MIB consists of the following groups.

Group Name	Description
`tuxDmAclTable`	Domains access control list
`tuxDmConnectionTable`	Domain access points connection status
`tuxDmExportTable`	Resources for exporting to remote domains
`tuxDmImportTable`	Resources imported through access points
`tuxDmLocalTable`	Defines a local domain access point
`tuxDmOsitpTable`	Defines the local or remote OSI TP protocol
`tuxDmPasswordTable`	Inter-domain authentication
`tuxDmPrincipalMapTable`	For mapping principal names
`tuxDmRemoteTable`	Remote domain configuration information
`tuxDmResourcesTable`	Domains-specific configuration information

Group Name	Description
`tuxDmRoutingTable`	Routing criteria information
`tuxDmrPrincipalTable`	Configuration information for remote principal names
`tuxDmSnaCRMTable`	SNA-CRM-specific configuration information
`tuxDmSnaLinkTable`	Snax-specific configuration information
`tuxDmSnaStackTable`	Defines SNA stack used by a specific SNA CRM
`tuxDmTdomainTable`	Defines the TDomain specific configuration
`tuxDmTransactionTable`	Information about transactions that span domains

tuxDmAclTable

The `tuxDmAclTable` group contains objects that represent access control information for domains.

Object Name	Object ID
`tuxDmAclName`	.1.3.6.1.4.1.140.300.80.1.1.10
`tuxDmrAccessPointList`	.1.3.6.1.4.1.140.300.80.1.1.20
`tuxDmAclState`	.1.3.6.1.4.1.140.300.80.1.1.30

tuxDmAclName

Syntax

`DisplayString` (`SIZE`(*`1..15`*))

Access

read-only

Description

The access control list name.

tuxDmrAccessPointList

Syntax

`DisplayString` (SIZE(*1..1000*))

Access

read-write

Description

The list of remote domain access points associated with this access control list. `tuxDmrAccessPointlist` is a comma-separated list of remote access point names (that is, the value of the `tuxDMRemoteDmAccessPoint` object of a valid `tuxDmRemote` object). The list can contain up to 50 remote access point identifier elements. Setting the value of this object to "*" means that all the remote domains in the configuration are associated with this entry. `blank string` means no remote access points are associated with this entry. The default is - (equivalent of NULL string).

tuxDmAclState

Syntax

`INTEGER { valid(1) | invalid(2) }`

Access

read-write

Description

This object denotes the current state of the `tuxDmAcl` instance.

`GET requests:`

`valid(1)`: `tuxDmAcl` object is defined and inactive. This state is the only valid state for this group. ACL groups are never active.

`SET requests:`

`invalid(2)`: Delete.

tuxDmConnectionTable

The `tuxDmConnectionTable` group contains objects that represent the status of connections between domain access points.

Object Name	Object ID
`tuxDmConDmlAccessPoint`	.1.3.6.1.4.1.140.300 . 90.1.1.10
`tuxDmConDmrAccessPoint`	.1.3.6.1.4.1.140.300 . 90.1.1.20
`tuxDmConDmType`	.1.3.6.1.4.1.140.300 . 90.1.1.30
`tuxDmConState`	.1.3.6.1.4.1.140.300 . 90.1.1.40
`tuxDmConDmCurEncryptBits`	.1.3.6.1.4.1.140.300 . 90.1.1.50

tuxDmConDmlAccessPoint

Syntax

`DisplayString` (`SIZE`(*`1..24`*))

Access

read-only

Description

The name of the local domain access point that identifies the connection between the domains.

tuxDmConDmrAccessPoint

Syntax

`DisplayString` (`SIZE`(*`1..24`*))

Access

read-only

Description

The name of the remote domain access point that identifies the connection between the domains

tuxDmConDmType

Syntax

`INTEGER { tdomain(1)}`

Access

read-only

Description

The type of domain, such as `tdomain`.

tuxDmConState

Syntax

`INTEGER { active(1) | suspended(2) | initializing(3) | inactive(4) | unknown(5)}`

Access

read-only

Description

This object denotes the current state of the `tuxDmConnection` instance.

`GET requests:`

`active(1):` The connection is active.

`suspended(2)`: The connection is awaiting retry.

`initializing(3)`: The connection is initializing.

`inactive(4)`: The specified domain access points are disconnected. (Returned in case of Tuxedo 7.1 and later only.)

`unknown(5)`: The state cannot be determined.

`SET requests:`

`active(1):`Connect the specified domain access points. If the current state is `suspended` or `inactive`, `SET:active` places the connection into the state initializing, otherwise, there is no change.

`inactive(4)`: Disconnect the specified domain access points and destroy the `tuxDmConnection` object

tuxDmConDmCurEncryptBits

Syntax

`INTEGER { enc-0-bit(1) | enc-40-bits(2) | enc-56-bits(3) | enc-128-bits(4)}`

Access

read-only

Description

This object is available when `tuxDmConDmType=tdomain`.

The level of encryption in use on this connection:

`enc-0-bit(1)`
No encryption

`enc-40-bits(2)`, `enc-56-bits(3)`, **and** `enc-128-bits(4)`
These values specify the encryption length (in bits).

tuxDmExportTable

The `tuxDmExportTable` group contains objects that represent local resources that are exported to one or more remote domains through a local access point.

Object Name	**Object ID**
`tuxDmExpDmResourceName`	.1.3.6.1.4.1.140.300 . 100.1.1.10
`tuxDmExpDmlAccessPoint`	.1.3.6.1.4.1.140.300 . 100.1.1.20
`tuxDmExpState`	.1.3.6.1.4.1.140.300 . 100.1.1.30
`tuxDmExpDmAclName`	.1.3.6.1.4.1.140.300 . 100.1.1.40
`tuxDmExpDmConv`	.1.3.6.1.4.1.140.300 . 100.1.1.50
`tuxDmExpDmResourceType`	.1.3.6.1.4.1.140.300 . 100.1.1.60

Object Name	**Object ID**
`tuxDmExpDmRemoteName`	.1.3.6.1.4.1.140.300.100.1.1.70
`tuxDmExpDmInBufType`	.1.3.6.1.4.1.140.300.100.1.1.80
`tuxDmExpDmOutBufType`	.1.3.6.1.4.1.140.300.100.1.1.90

tuxDmExpDmResourceName

Syntax

`DisplayString` (`SIZE`(*`1..15`*))

Access

read-only

Description

The local resource name for entries of resource type `service` (the service name), `qspace` (the queue space name), and `qname` (the queue name). For a service entry, the value of this object corresponds to the value of an active `tuxTSrvGrp:tuxTsvcName` object. This resource is exported to other domains with the same name or with the alias defined in the `tuxDmExpDmRemoteName` objects.

tuxDmExpDmlAccessPoint

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-only

Description

The local access point name. Setting this object to “*” means the resource is available at all local access points.

tuxDmExpState

Syntax

`INTEGER { valid(1) | invalid(2) }`

Access

read-write

Description

This object denotes the current state of the `tuxDmExport` instance.

`GET requests:`
`valid(1)`: The object exists.

`SET requests:`
`invalid(2)`: Delete object.

tuxDmExpDmAclName

Syntax

`DisplayString` (`SIZE`(*`1..15`*))

Access

read-write

Description

The name of a `tuxDmAcl` object to use for security on this local service. This object is not permitted if `tuxDmExpDmResourceType=qname`.

tuxDmExpDmConv

Syntax

`INTEGER { yes(1) | no(2) }`

Access

read-only

Description

Specifies whether this local service is conversational or not.

tuxDmExpDmResourceType

Syntax

`INTEGER { service(1) | qspace(2) | qname(3)}`

Access

read-only

Description

Specifies whether this entry is for a service, qspace, or qname. The default is `service`.

tuxDmExpDmRemoteName

Syntax

`DisplayString` (`SIZE`(*`1..127`*))

Access

read-write

Description

For entries of type `service` or `qspace`, this object specifies the name exported through non-topend remote access points.

tuxDmExpDmInBufType

Syntax

`DisplayString` (`SIZE`(*`1..513`*))

Access

read-write

Description

Attributes available from remote access points of `tuxDmExpDmResourceType=snax|ositp`:

`type[:subtype] -Input buffer type`, optionally followed by subtype.

If this object is present, it defines the buffer type (and subtype) accepted. This object should be defined for entries of `tuxDmExpDmResourceType=service` when access is permitted from remote access points using `ositp` with the UDT application context, or when using `snax`. This object is not permitted if `tuxDmExpDmResourceType=qspace`.

tuxDmExpDmOutBufType

Syntax

`DisplayString` (`SIZE`(*`1..513`*))

Access

read-write

Description

Attributes available from remote access points of `tuxDmExpDmResourceType=snax|ositp`:

`type[:subtype] -Output buffer type`, optionally followed by subtype.

If this object is present, it defines the buffer type (and subtype) output by the service. This object should be defined for entries of `tuxDmExpDmResourceType=service` when access is permitted from remote access points using `ositp` with the UDT application context, or when using `snax`. This object is not permitted if `tuxDmExpDmResourceType=qspace` and `qname`.

tuxDmImportTable

The `tuxDmImportTable` group contains objects that represent remote resources that are imported through one or more remote domain access points and made available to the local domain through one or more local domain access points.

Object Name	**Object ID**
`tuxDmImpDmResourceName`	.1.3.6.1.4.1.140.300.110.1.1.10
`tuxDmImpDmrAccessPointList`	.1.3.6.1.4.1.140.300.110.1.1.20

Object Name	**Object ID**
`tuxDmImpDmlAccessPoint`	.1.3.6.1.4.1.140.300.110.1.1.30
`tuxDmImpState`	.1.3.6.1.4.1.140.300.110.1.1.40
`tuxDmImpDmAutoTran`	.1.3.6.1.4.1.140.300.110.1.1.50
`tuxDmImpDmConv`	.1.3.6.1.4.1.140.300.110.1.1.60
`tuxDmImpDmLoad`	.1.3.6.1.4.1.140.300.110.1.1.70
`tuxDmImpDmPrio`	.1.3.6.1.4.1.140.300.110.1.1.80
`tuxDmImpDmResourceType`	.1.3.6.1.4.1.140.300.110.1.1.90
`tuxDmImpDmRemoteName`	.1.3.6.1.4.1.140.300.110.1.1.100
`tuxDmImpDmRoutingName`	.1.3.6.1.4.1.140.300.110.1.1.110
`tuxDmImpDmTranTime`	.1.3.6.1.4.1.140.300.110.1.1.120
`tuxDmImpDmInBufType`	.1.3.6.1.4.1.140.300.110.1.1.130
`tuxDmImpDmOutBufType`	.1.3.6.1.4.1.140.300.110.1.1.140
`tuxDmImpDmteProduct`	.1.3.6.1.4.1.140.300.110.1.1.150
`tuxDmImpDmteFunction`	.1.3.6.1.4.1.140.300.110.1.1.160
`tuxDmImpDmteTarget`	.1.3.6.1.4.1.140.300.110.1.1.170
`tuxDmImpDmteQualifier`	.1.3.6.1.4.1.140.300.110.1.1.180
`tuxDmImpDmteRtqGroup`	.1.3.6.1.4.1.140.300.110.1.1.190
`tuxDmImpDmteRtqName`	.1.3.6.1.4.1.140.300.110.1.1.200

tuxDmImpDmResourceName

Syntax

`DisplayString` (`SIZE`(*`1..127`*))

Access

read-only

Description

The remote resource name used for entries of resource type `service` (the service name, `qspace` (the queue space name), and `qname` (the queue name). This resource is imported from remote domains with the same name or with the alias defined in the `tuxDmImpDmRemoteName` or `tuxDmImpDmte*` objects.

tuxDmImpDmrAccessPointList

Syntax

`DisplayString` (`SIZE`(*`1..15`*))

Access

read-only

Description

Identifies the remote domain access point through which this resource should be imported. This object value is a comma-separated failover domain list; it can contain up to three remote domain access points. If this object is set to "*", the resource can be imported from all remote access points.

tuxDmImpDmlAccessPoint

Syntax

`DisplayString` (`SIZE`(*`1..15`*))

Access

read-only

Description

The name of the local domain access point through which this imported resource should be made available. If set to the null string, the resource is made available through all local domain access points.

tuxDmImpState

Syntax

`INTEGER { valid(1) | invalid(2) }`

Access

read-write

Description

This object denotes the current state of the tuxDmImport instance.

`GET requests:`

`valid(1)`: The object exists.

`SET requests:`

`invalid(2)`: The object is deleted. A state change is allowed in the active or suspended state and results in the invalid state.

tuxDmImpDmAutoTran

Syntax

`INTEGER { yes(1) | no(2) }`

Access

read-write

Description

When a request is received for a resource that is not already within a transaction, this object automatically starts a transaction for the resource. The default is `no(2)`.

tuxDmImpDmConv

Syntax

`INTEGER { yes(1) | no(2) }`

Access

read-write

Description

A boolean value (yes or no) specifies whether the service is conversational.

tuxDmImpDmLoad

Syntax

`INTEGER (1..32767)`

Access

read-write

Description

The service load.

tuxDmImpDmPrio

Syntax

`INTEGER (1..100)`

Access

read-write

Description

The dequeuing priority. Service requests with a higher priority are serviced first.

tuxDmImpDmResourceType

Syntax

`INTEGER { service(1) | qspace(2) | qname(3)}`

Access

read-write

Description

Specifies whether this entry is for a service, qspace, or qname. The default is `service`.

tuxDmImpDmRemoteName

Syntax

`DisplayString` (`SIZE`(`1..127`))

Access

read-write

Description

For entries of type `service` or `qspace`, this object specifies the name imported through non-topend remote access points.

tuxDmImpDmRoutingName

Syntax

`DisplayString` (`SIZE`(`1..15`))

Access

read-write

Description

The name of a `tuxDmRoutingTable` object to use for routing criteria for this `service` or `qspace`.

tuxDmImpDmTranTime

Syntax

`INTEGER (1..32767)`

Access

read-write

Description

Transaction time value (in seconds) of transactions automatically started for this service or qspace. Transactions are started automatically when a request not in transaction mode is received and the `tuxDmImpDmAutoTran` object is set to `yes`.

Limitation: Run-time updates to this object are not reflected in active requests.

tuxDmImpDmInBufType

Syntax

`DisplayString` (`SIZE`(*`1..256`*))

Access

read-write

Description

Attributes available from remote access points of `tuxDmRemoteDmType=snax|ositp`:

type[:subtype] - Input buffer type, optionally followed by subtype. If this object is present, it defines the buffer type (and subtype) accepted. This object should be defined for entries of `DMRESOURCETYPE=service` when access is permitted to remote access points that use `ositp` with the UDT application context, or that use `snax`. This object is not permitted if `tuxDmImpDmResourceType=qspace`.

tuxDmImpDmOutBufType

Syntax

`DisplayString` (`SIZE`(*`1..256`*))

Access

read-write

Description

Attributes available from remote access points of `tuxDmRemoteDmType=snax|ositp`:

tuxDmLocalTable

The `tuxDmLocalTable` group defines a local domain access point. A local domain access point is used to control access to local services exported to remote domains and to control access to remote services imported from remote domains.

Object Name	Object ID
`tuxDmLclDmAccessPoint`	.1.3.6.1.4.1.140.300.120.1.1.10
`tuxDmLclDmAccessPointID`	.1.3.6.1.4.1.140.300.120.1.1.20
`tuxDmLclDmSrvGroup`	.1.3.6.1.4.1.140.300.120.1.1.30
`tuxDmLclDmType`	.1.3.6.1.4.1.140.300.120.1.1.40
`tuxDmLclState`	.1.3.6.1.4.1.140.300.120.1.1.50
`tuxDmLclDmAuditLog`	.1.3.6.1.4.1.140.300.120.1.1.60
`tuxDmLclDmBlockTime`	.1.3.6.1.4.1.140.300.120.1.1.70
`tuxDmLclDmMaxRapTran`	.1.3.6.1.4.1.140.300.120.1.1.80
`tuxDmLclDmMaxTran`	.1.3.6.1.4.1.140.300.120.1.1.90
`tuxDmLclDmSecurity`	.1.3.6.1.4.1.140.300.120.1.1.100
`tuxDmLclDmTlogDev`	.1.3.6.1.4.1.140.300.120.1.1.110
`tuxDmLclDmTlogName`	.1.3.6.1.4.1.140.300.120.1.1.120
`tuxDmLclDmTlogSize`	.1.3.6.1.4.1.140.300.120.1.1.130
`tuxDmLclDmConnectionPolicy`	.1.3.6.1.4.1.140.300.120.1.1.140
`tuxDmLclDmRetryInterval`	.1.3.6.1.4.1.140.300.120.1.1.150
`tuxDmLclDmMaxRetry`	.1.3.6.1.4.1.140.300.120.1.1.160
`tuxDmLclDmConnPrincipalName`	.1.3.6.1.4.1.140.300.120.1.1.170
`tuxDmLclDmMachineType`	.1.3.6.1.4.1.140.300.120.1.1.180
`tuxDmLclDmBlobShmSize`	.1.3.6.1.4.1.140.300.120.1.1.190

tuxDmLclDmAccessPoint

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-only

Description

This object value is an identifier unique within the scope of `tuxDmLocal` and `tuxDmRemote` entry names in the domain configuration.

tuxDmLclDmAccessPoint

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-write

Description

The domain access point identifier. This identifier is unique across all local and remote domain access points.

tuxDmLclDmSrvGroup

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-write

Description

The group in which the administrative servers and gateway processes of the local domain reside.

tuxDmLclDmType

Syntax

```
INTEGER { tdomain(1) | ositp(2) | snax(3)}
```

Access

read-write

Description

The type of domain: `tdomain` for an Oracle Tuxedo domain, `ositp` for an OSI domain, and `snax` for an SNA domain. The presence or absence of other objects depends on the value of this object.

tuxDmLclState

Syntax

`INTEGER { valid(1) | invalid(2) }`

Access

read-write

Description

This object denotes the current state of the tuxDmLocal instance.

`GET requests:`
`valid(1)`: The object exists.

`SET requests:`
`invalid(2)`: The object is deleted.

tuxDmLclDmAuditLog

Syntax

`DisplayString` (`SIZE`(*`1..256`*)) (up to 78 bytes for Oracle Tuxedo 8.0 or earlier)

Access

read-write

Description

The name of the audit log file for this local domain.

tuxDmLclDmBlockTime

Syntax

`INTEGER (0..32767)`

Access

read-write

Description

Specifies the maximum wait time allowed for a blocking call. The value sets a multiplier of the `SCANUNIT` parameters specified in the tuxTdomain group. The value `SCANUNIT * tuxDmLclDmBlockTime` must be greater than or equal to `SCANUNIT` and less than 32,768 seconds. If this object is not specified, the default is set to the value of the `tuxDmLclDmBlockTime` object specified in the tuxTdomain object. A timeout always implies a failure of the affected request. Notice that the timeout specified for transactions in the tuxTdomain is always used when the request is issued within a transaction.

tuxDmLclDmMaxRapTran

Syntax

`INTEGER (0..32767)`

Access

read-write

Description

The maximum number of remote domain access points that can be involved in a single transaction.

tuxDmLclDmMaxTran

Syntax

`INTEGER (0..32767)`

Access

read-write

Description

The maximum number of simultaneous transactions allowed on this local domain access point. This number must be greater than or equal to the `tuxTdomainMaxGTT` object in the tuxTdomain group.

tuxDmLclDmSecurity

Syntax

`INTEGER { none(1) | app-pw(2) | dm-pw(3) | dm-user-pw(4) | te-clear(5) | te-safe(6) | te-private(7)}`

Access

read-write

Description

The type of security enabled on this domain. This object must be set to one of the following:

`none(1)`
: No security is enabled.

`app-pw(2)`
: Valid only when `tuxDmRemoteDmType=tdomain`. Application password-based security is enabled.

`dm-pw(3)`
: Valid only when `tuxDmRemoteDmType=tdomain`. Domain password-based security is enabled.

`dm-user-pw(4)`
: Valid only when `tuxDmRemoteDmType=snax`. Translation of principal names is enabled.

tuxDmLclDmTlogDev

Syntax

`DisplayString` (`SIZE`(*`1..256`*)) (up to 78 bytes for Oracle Tuxedo 8.0 or earlier)

Access

read-write

Description

The device (raw slice) or file that contains the domain TLOG for this local domain access point. The TLOG is stored as an Oracle Tuxedo system VTOC table on the device. For reliability, the use of a device (raw slice) is recommended.

tuxDmLclDmTlogName

Syntax

`DisplayString` (`SIZE`(`1..30`))

Access

read-write

Description

The domain TLOG name for this local domain access point. If more than one TLOG exists on the same device, each TLOG must have a unique name.

tuxDmLclDmTlogSize

Syntax

`INTEGER`

Access

read-write

Description

The size in pages of the TLOG for this local domain access point. This size is constrained by the amount of space available on the device identified in `tuxDmLclTlogDev`.

tuxDmLclDmConnectionPolicy

Syntax

`INTEGER { on-demand(1) | on-startup(2) | incoming-only(3)}`

Access

read-write

Description

Attributes available when `tuxDmRemoteDmType=tdomain`.

Specifies the conditions under which a local domain gateway tries to establish a connection to a remote domain. Supported values are:

`on-demand(1)`
: Means that a connection is attempted only when requested by either a client request to a remote service or an administrative “`connect`” command. The default setting for this object is `on-demand`. The on-demand policy provides the equivalent behavior to previous releases, in which this object was not explicitly available.

`on-startup(2)`
: Means that a domain gateway attempts to establish a connection with its remote domain access points at gateway server initialization time. Remote services, (that is, services advertised by the domain gateway for this local access point) are advertised only if a connection is successfully established to that remote domain access point. Therefore, if there is no active connection to a remote domain access point, the remote services are suspended. By default, this connection policy retries failed connections every 60 seconds; however, you can specify a different value for this interval using the `tuxDmLclMaxRetry` and `tuxDmLclDmRetryInterval` objects.

tuxDmLclDmRetryInterval

Syntax

`INTEGER`

Access

read-write

Description

The number of seconds between automatic attempts to establish a connection to remote domain access points. The minimum value is 0 and the maximum value is 2147483647. The default setting is 60. If `tuxDmLclDmMaxRetry` is set to 0, setting `tuxDmLclDmRetryInterval` is not allowed.

This object is valid only when the `tuxDmLclDmConnectionPolicy` object is set to `on-startup`. For other connection policies, automatic retries are disabled.

tuxDmLclDmMaxRetry

Syntax

`INTEGER`

Access

read-write

Description

The number of times that a domain gateway tries to establish connections to remote domain access points. The minimum value is 0 and the maximum is `MAXLONG`. `MAXLONG` indicates that retry processing is repeated indefinitely, or until a connection is established. For a connection policy of `on-startup`, the default setting for `tuxDmLclMaxRetry` is `MAXLONG`. Setting this object to 0 turns off the auto retry mechanism. For other connection policies, auto retries are disabled.

The `tuxDmLclMaxRetry` object is valid only when the connection policy is on-startup.

tuxDmLclDmConnPrincipalName

Syntax

`DisplayString` (`SIZE`(*`1..511`*))

Access

read-write

Description

The connection principal name identifier. This object value is the principal name used for verifying the identity of this local domain access point when establishing a connection to a remote domain access point. This object only applies to domains of type `TDOMAIN` that are running Oracle Tuxedo 7.1 or later software.

This object can contain a maximum of 511 characters (excluding the terminating null character). If this object is not specified, the connection principal name defaults to the `tuxDmLclDmAccessPointId` string for this local domain access point.

For default authentication plug-ins, if a value is assigned to this object for this local domain access point, it must be the same as the value assigned to the `tuxDmLclAccessPointId` object for this local domain access point. If these values do not match, the local domain gateway process does not boot and the system generates the following `userlog(3c)` message: “ERROR: Unable to acquire credentials”.

tuxDmLclDmMachineType

Syntax

`DisplayString` (`SIZE`(*`1..15`*))

Access

read-write

Description

Used for grouping domains so that encoding/decoding of messages between domains can be bypassed. If no value is specified, the default is to turn encoding/decoding on. If the value set for this object is the same in both the `DM_LOCAL` and the `DM_REMOTE` section of a domain configuration file, data encoding/decoding is bypassed. The value set for this object can be any string value up to 15 characters in length. The value is used only for comparison.

This object is valid only when `tuxDmRemoteDmType=tdomain`.

tuxDmLclDmBlobShmSize

Syntax

`INTEGER`

Access

read-write

Description

This object is relevant only to local domain access point entries. It specifies the amount of shared memory allocated to storing binary large object log information specific to `ositp`.

tuxDmOsitpTable

The `tuxDmOsitpTable` group contains objects that define the OSI TP protocol-related configuration information for a specific local or remote domain access point.

Object Name	**Object ID**
`tuxDmOsiDmAccessPoint`	.1.3.6.1.4.1.140.300.130.1.1.10
`tuxDmOsiDmState`	.1.3.6.1.4.1.140.300.130.1.1.20
`tuxDmOsiDmApt`	.1.3.6.1.4.1.140.300.130.1.1.30
`tuxDmOsiDmAeq`	.1.3.6.1.4.1.140.300.130.1.1.40
`tuxDmOsiDmNwDevice`	.1.3.6.1.4.1.140.300.130.1.1.50
`tuxDmOsiDmAcn`	.1.3.6.1.4.1.140.300.130.1.1.60
`tuxDmOsiDmApid`	.1.3.6.1.4.1.140.300.130.1.1.70
`tuxDmOsiDmAeid`	.1.3.6.1.4.1.140.300.130.1.1.80
`tuxDmOsiDmUrch`	.1.3.6.1.4.1.140.300.130.1.1.90
`tuxDmOsiDmMaxListeningEp`	.1.3.6.1.4.1.140.300.130.1.1.100
`tuxDmOsiDmXatmiEncoding`	.1.3.6.1.4.1.140.300.130.1.1.110

tuxDmOsiDmAccessPoint

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-only

Description

The domain access point name for which this entry provides the protocol-specific configuration information. This object matches the domain access point name given in the `tuxDmLocal` or `tuxDmRemote` entry that defines the protocol-independent configuration of the domain access point.

tuxDmOsiDmState

Syntax

`INTEGER { valid(1) | invalid(2) }`

Access

read-write

Description

This object denotes the current state of the tuxDmOsitp instance.

`GET requests:`
`valid(1)`: The object exists.

`SET requests:`
`invalid(2)`: The object is deleted.

tuxDmOsiDmApt

Syntax

`DisplayString` (`SIZE`(*`1..78`*))

Access

read-write

Description

The application process title of the domain access point in object identifier form.

tuxDmOsiDmAeq

Syntax

`DisplayString` (`SIZE`(*`1..78`*))

Access

read-write

Description

The application entity qualifier of the domain access point in integer form.

tuxDmOsiDmNwDevice

Syntax

`DisplayString` (`SIZE`(*`1..78`*))

Access

read-write

Description

This object, which specifies the network device to be used, is relevant when it defines a local domain access point and ignored for a remote domain access point.

tuxDmOsiDmAcn

Syntax

`INTEGER { atmi(1) | udt(2) }`

Access

read-write

Description

The application context name to use with this domain access point. When you establish a dialogue to a remote domain access point, use the application context name from the remote domain access point, if it is present. If the application context name from the remote domain access point is absent, use the application context name from the local domain access point. The value `xatmi` selects the use of the X\Open-defined xatmi Application Service Element (ASE) and encoding. The value `udt` selects the use of the ISO/IEC 10026-5 User Data Transfer encoding.

tuxDmOsiDmApid

Syntax

`INTEGER`

Access

read-write

Description

This optional object defines the application process-invocation identifier to be used on this domain access point.

tuxDmOsiDmAeid

Syntax

`INTEGER`

Access

read-write

Description

This optional object defines the application entity-invocation identifier to be used on this domain access point.

tuxDmOsiDmUrch

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-write

Description

This object specifies the user portion of the OSI TP recovery context handle. It can be required by an OSI TP provider in order to perform recovery of distributed transactions after a communication line or system failure.

This object is relevant for defining a local domain access point and ignored for a remote domain access point.

tuxDmOsiDmMaxListeningEp

Syntax

`INTEGER (1..32767)`

Access

read-write

Description

This object specifies the number of endpoints awaiting incoming OSI TP dialogue. It is relevant for defining a local domain access point and ignored for a remote domain access point.

tuxDmOsiDmXatmiEncoding

Syntax

`INTEGER { cae(1) | preliminary(2) | oltp-tm2200(3) }`

Access

read-write

Description

This object specifies the version of the XATMI protocol used to communicate with a remote system. Valid values are: `cae`, `preliminary`, and `oltp-tm2200`.

This object is relevant for remote domain access points and ignored for local domain access points.

tuxDmPasswordTable

The `tuxDmPasswordTable` group contains objects that represent configuration information for inter-domain authentication through access points of type `tdomain`.

Object Name	Object ID
`tuxDmPasswdDmlAccessPoint`	.1.3.6.1.4.1.140.300.140.1.1.10
`tuxDmPasswdDmrAccessPoint`	.1.3.6.1.4.1.140.300.140.1.1.20
`tuxDmPasswdDmlPWD`	.1.3.6.1.4.1.140.300.140.1.1.30
`tuxDmPasswdDmrPWD`	.1.3.6.1.4.1.140.300.140.1.1.40
`tuxDmPasswdState`	.1.3.6.1.4.1.140.300.140.1.1.50

tuxDmPasswdDmlAccessPoint

Syntax

`DisplayString` (`SIZE`(*`1..24`*))

Access

read-only

Description

The name of the local domain access point to which the password applies.

tuxDmPasswdDmrAccessPoint

Syntax

`DisplayString` (`SIZE`(*`1..24`*))

Access

read-only

Description

The name of the remote domain access point to which the password applies.

tuxDmPasswdDmlPWD

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

write-only

Description

The local password used to authenticate connections between the local domain access point identified by `tuxDmPasswdDmlAccessPoint` and the remote domain access point identified by `tuxDmPasswdDmrAccessPoint`.

tuxDmPasswdDmrPWD

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

write-only

Description

The remote password used to authenticate connections between the local domain access point identified by `tuxDmPasswdDmlAccessPoint` and the remote domain access point identified by `tuxDmPasswdDmrAccessPoint`.

tuxDmPasswdState

Syntax

`INTEGER { valid(1) | invalid(2) | recrypt(3) }`

Access

read-write

Description

This object denotes the current state of the tuxDmPassword instance.

`GET requests:`

`valid(1)`: The object exists.

`SET requests:`

`invalid(2)`: The object is deleted.

`recrypt(3)`: Re-encrypt all passwords using a new encryption key.

tuxDmPrincipalMapTable

The `tuxDmPrincipalMapTable` group contains objects that represent configuration information for mapping principal names to and from external principal names across access point of type `snax`.

Object Name	Object ID
`tuxDmPrinMapDmlAccessPoint`	.1.3.6.1.4.1.140.300.150.1.1.10
`tuxDmPrinMapDmrAccessPoint`	.1.3.6.1.4.1.140.300.150.1.1.20
`tuxDmPrinMapDmlPrinName`	.1.3.6.1.4.1.140.300.150.1.1.30
`tuxDmPrinMapDmrPrinName`	.1.3.6.1.4.1.140.300.150.1.1.40
`tuxDmPrinMapDirection`	.1.3.6.1.4.1.140.300.150.1.1.50
`tuxDmPrinMapState`	.1.3.6.1.4.1.140.300.150.1.1.60

tuxDmPrinMapDmlAccessPoint

Syntax

`DisplayString` (`SIZE`(*`1..12`*))

Access

read-only

Description

The local domain access point to which the principal mapping applies.

tuxDmPrinMapDmrAccessPoint

Syntax

`DisplayString` (`SIZE`(*`1..12`*))

Access

read-only

Description

The remote domain access point to which the principal mapping applies.

tuxDmPrinMapDmlPrinName

Syntax

`DisplayString` (`SIZE`(*`1..12`*))

Access

read-only

Description

The local principal name in the principal mapping.

tuxDmPrinMapDmrPrinName

Syntax

`DisplayString` (`SIZE`(*`1..12`*))

Access

read-only

Description

The remote principal name in the principal mapping.

tuxDmPrinMapDirection

Syntax

`INTEGER { in(1) | out(2) | both(3) }`

Access

read-write

Description

The direction to which the principal mapping applies.

`in(1)`

Is incoming to this Oracle Tuxedo domain through the given remote domain access point and local domain access point.

`out(2)`
Is outgoing from this Oracle Tuxedo domain through the given local domain access point and remote domain access point.

`both(3)`
Applies to both incoming to and outgoing from this Oracle Tuxedo domain through the given local domain access point and remote domain access point.

tuxDmPrinMapState

Syntax

`INTEGER { valid(1) | invalid(2) }`

Access

read-write

Description

This object denotes the current state of the `tuxDmPrincipalMap` instance.

`GET requests:`
`valid(1)`: The object exists.

`SET requests:`
`invalid(2)`: The object is deleted.

tuxDmRemoteTable

The `tuxDmRemoteTable` group contains objects that represent remote domain access point configuration information. Local resources that can be exported through one or more local domain access points are made accessible to a remote domain through a remote domain access point. Similarly, remote resources are imported from a remote domain through a remote domain access point.

Object Name	**Object ID**
`tuxDmRemoteDmAccessPoint`	.1.3.6.1.4.1.140.300.160.1.1.10
`tuxDmRemoteDmAccessPointID`	.1.3.6.1.4.1.140.300.160.1.1.20
`tuxDmRemoteType`	.1.3.6.1.4.1.140.300.160.1.1.30

Object Name	Object ID
`tuxDmRemoteState`	.1.3.6.1.4.1.140.300.160.1.1.40
`tuxDmRemoteDmCodePage`	.1.3.6.1.4.1.140.300.160.1.1.50
`tuxDmRemoteDmMachineType`	.1.3.6.1.4.1.140.300.160.1.1.90

tuxDmRemoteDmAccessPoint

Syntax

`DisplayString` (`SIZE(`*`1..30`*`)`)

Access

read-only

Description

The name of this `tuxDmRemote` entry. This object value is an identifier unique within the scope of `tuxDmLocal` and `tuxDmRemote` entry names in the domain configuration.

tuxDmRemoteDmAccessPointID

Syntax

`DisplayString` (`SIZE(`*`1..30`*`)`)

Access

read-write

Description

The access point identifier. This identifier is unique across all local and remote domain access points.

tuxDmRemoteType

Syntax

`INTEGER { tdomain(1) | ositp(2) | snax(3)}`

Access

read-write

Description

The type of domain:

`tdomain(1)`
An Oracle Tuxedo domain.

`ositp(2)`
An OSI domain.

`snax(3)`
An SNA domain.

The presence or absence of other objects depends on the value of this object.

tuxDmRemoteState

Syntax

`INTEGER { valid(1) | invalid(2)}`

Access

read-write

Description

This object denotes the current state of the `tuxDmRemote` instance.

`GET requests:`
`valid(1)`: The object exists.

`SET requests:`
`invalid(2)`: The object is deleted.

tuxDmRemoteDmCodePage

Syntax

`DisplayString` (`SIZE`(*`1..20`*))

Access

read-write

Description

Attributes available when `tuxDmRemoteDmType=snax`. The name of the default translation tables to use when translating requests and replies that are sent through this access point.

tuxDmRemoteDmMachineType

Syntax

`DisplayString` (`SIZE`(*`1..15`*))

Access

read-write

Description

Attributes available when `tuxDmRemoteDmType=tdomain`.

These objects are used for grouping domains so that encoding/decoding of messages between domains can be bypassed. If it is not specified, the default is to turn encoding/decoding on. If the value set for this object is the same in both the `DM_LOCAL` and the `DM_REMOTE` sections of a domain configuration file, data encoding/decoding is bypassed. The value set for this object can be any string value up to 15 characters in length. The object value is used only for comparison.

tuxDmResourcesTable

The `tuxDmResourcesTable` group contains an object that represents Domains-specific configuration information.

Object Name	**Object ID**
`tuxDmResourcesDmVersion`	.1.3.6.1.4.1.140.300.170.1.1.10

tuxDmResourcesDmVersion

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-only

Description

A user-supplied identifier for the Domains configuration.

tuxDmRoutingTable

The `tuxDmRoutingTable` group contains objects that represent routing criteria information for routing requests to a domain through a remote domain access point.

Object Name	**Object ID**
`tuxDmRoutingDmRoutingName`	.1.3.6.1.4.1.140.300.180.1.1.10
`tuxDmRoutingDmBufType`	.1.3.6.1.4.1.140.300.180.1.1.20
`tuxDmRoutingDmField`	.1.3.6.1.4.1.140.300.180.1.1.30
`tuxDmRoutingDmFieldType`	.1.3.6.1.4.1.140.300.180.1.1.40
`tuxDmRoutingDmRanges`	.1.3.6.1.4.1.140.300.180.1.1.50
`tuxDmRoutingState`	.1.3.6.1.4.1.140.300.180.1.1.60

tuxDmRoutingDmRoutingName

Syntax

`DisplayString` (`SIZE`(*`1..15`*))

Access

read-only

Description

The name of the routing criteria table entry.

tuxDmRoutingDmBufType

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-only

Description

List of types and subtypes of data buffers for which this routing entry is valid.

`type1[:subtype1[,subtype2...]][:type2[:subtype3[,subtype4...]]...]`

A maximum of 32 type/subtype combinations is allowed. The types are restricted to the following: FML, XML, VIEW, X-C-TYPE, or X_COMMON. No subtype can be specified for FML or XML; subtypes are required for types VIEW, X_C_TYPE, and X_COMMON ("*" is not allowed).

Note that subtype names should not contain semicolon (;), colon (:), comma (,), or asterisk (*)characters. Duplicate type/subtype pairs cannot be specified for the same routing criterion name; more than one routing entry can have the same criterion name as long as the type/subtype pairs are unique. If multiple buffer types are specified for a single routing entry, the data types of the routing field for each buffer type must be the same.

tuxDmRoutingDmField

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-write

Description

This object value is the routing field name. This field is assumed to be an FML buffer, XML buffer, or VIEW field name that is identified in an FML field table (using the FLDTBLDIR and FIELDTBLS environment variables), or an FML VIEW table (using the VIEWDIR and VIEWFILES environment variables), respectively. This information is used to get the associated field value for data-dependent routing to an access point of a remote domain.

For an XML buffer type, this field contains either a routing element type (or name) or a routing element object name.

The syntax of this object for an XML buffer type is as follows:

```
root_element[/child_element][/child_element][/...][/@object_\
name]
```

The element is assumed to be an XML document or datagram element type. Indexing is not supported. Therefore, the Oracle Tuxedo system recognizes only the first occurrence of a given element type when it processes an XML buffer for data-dependent routing. This information is used to get the associated element content for data-dependent routing while sending a message. The content must be a string encoded in UTF-8.

The object is assumed to be an XML document or datagram object of the defined element. This information is used to get the associated object value for data-dependent routing while sending a message. The value must be a string encoded in UTF-8.

The combination of element name and object name can contain up to 30 characters.

tuxDmRoutingDmFieldType

Syntax

`INTEGER { char(1) | short(2) | long(3) | float(4) | double(5) | string(6)}`

Access

read-write

Description

The type can be `char`, `short`, `long`, `float`, `double`, or `string`. Only one type is allowed. This object value is used only for routing XML buffers.

tuxDmRoutingDmRanges

Syntax

`DisplayString` (`SIZE`(*`1..1000`*))

Access

read-write

Description

This object includes the ranges and associated server groups for the `tuxDmRoutingFieldType` routing field. The format of the string is a comma-separated, ordered list of range/group name pairs. A range/group pair has the following format:

`lower[-upper]:raccesspoint`

where `lower` and `upper` are assigned numeric values or character strings in single quotes. `lower` must be less than or equal to `upper`. To embed a single quote in a character string value, the quote must be preceded by two backslashes (for example, `'O\\'Brien'`). The value MIN can be used to indicate the minimum value for the data type of the associated field on the machine. The value MAX can be used to indicate the maximum value for the data type of the associated field on the machine. Thus, "`MIN-5`" is all numbers less than or equal to -5, and "`6-MAX`" is all numbers greater than or equal to 6.

The meta-character "*" (wild-card) in the position of a range indicates any values not covered by the other ranges previously seen in the entry. Only one wild-card range is allowed per entry and it should be the last range (ranges that follow it are ignored).

The routing field can be of any data type supported in FML. A numeric routing field must have numeric range values and a string routing field must have string range values.

String range values for `string`, `carray`, and `character` field types must be placed inside a pair of single quotes, and cannot be preceded by a sign. The `short` and `long` integer values are a string of digits, optionally preceded by a plus or minus sign. Floating point numbers are of the form accepted by the C compiler or `atof(3)`: an optional sign, then a string of digits (that optionally contains a decimal point), then an optional `e` or `E` followed by an optional sign or space, followed by an integer.

The `raccesspoint` parameter indicates the remote domain access point to which the request is routed if the field matches the range. A `raccesspoint` of "`*`" indicates that the request can go to any remote domain access point that imports the desired service.

tuxDmRoutingState

Syntax

`INTEGER { valid(1) | invalid(2)}`

Access

read-write

Description

This object denotes the current state of the `tuxDmRouting` instance.

`GET requests:`
`valid(1)`: The object exists.

`SET requests:`
`invalid(2)`: The object is deleted.

tuxDmrPrincipalTable

The `tuxDmrPrincipalTable` group contains objects that represent password configuration information for remote principal names.

Object Name	**Object ID**
`tuxDmrPrincipalDmrAccessPoint`	.1.3.6.1.4.1.140.300.190.1.1.10
`tuxDmrPrincipalDmrPrinName`	.1.3.6.1.4.1.140.300.190.1.1.20
`tuxDmrPrincipalDmrPrinPasswd`	.1.3.6.1.4.1.140.300.190.1.1.30
`tuxDmrPrincipalState`	.1.3.6.1.4.1.140.300.190.1.1.40

tuxDmrPrincipalDmrAccessPoint

Syntax

`DisplayString` (`SIZE`(*`1..24`*))

Access

read-only

Description

The remote domain access point to which the principal is applicable.

tuxDmrPrincipalDmrPrinName

Syntax

`DisplayString` (`SIZE`(*`1..24`*))

Access

read-only

Description

The remote principal name.

tuxDmrPrincipalDmrPrinPasswd

Syntax

`DisplayString` (`SIZE`(*`1..8`*))

Access

write-only

Description

The remote password used for the principal name when communicating through the remote domain access point identified in `tuxDmrPrincipalDmrAccessPoint`.

tuxDmrPrincipalState

Syntax

`INTEGER { valid(1) | invalid(2)}`

Access

read-write

Description

This object denotes the current state of the `tuxDmrPrincipal` instance.

`GET requests:`

`valid(1)`: The object exists.

`SET requests:`

`invalid(2)`: The object is deleted.

tuxDmSnaCRMTable

The `tuxDmSnaCRMTable` group defines the SNM-CRM-specific configuration information for the named local domain access point.

Object Name	Object ID
`tuxDmSnaCRMDmSNACRM`	.1.3.6.1.4.1.140.300.200.1.1.10
`tuxDmSnaCRMDmlAccessPoint`	.1.3.6.1.4.1.140.300.200.1.1.20
`tuxDmSnaCRMState`	.1.3.6.1.4.1.140.300.200.1.1.30
`tuxDmSnaCRMDmNWAddr`	.1.3.6.1.4.1.140.300.200.1.1.40
`tuxDmSnaCRMDmNWDevice`	.1.3.6.1.4.1.140.300.200.1.1.50

tuxDMSnaCRMDmSNACRM

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-only

Description

This object is an identifier, unique within the scope of the SNA CRM entries in the domain configuration, used to identify this SNA CRM entry.

tuxDMSnaCRMDmAccessPoint

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

write-only

Description

The name of the local domain access point entry with which this SNA CRM is used.

tuxDMSnaCRMState

Syntax

`INTEGER { valid(1) | invalid(2)}`

Access

read-write

Description

This object denotes the current state of the `tuxDmSnaCRM` instance.

`GET requests:`
`valid(1)`: The object exists.

`SET requests:`
`invalid(2)`: The object is deleted.

tuxDMSnaCRMDmNWAddr

Syntax

`DisplayString` (`SIZE`(*`1..256`*)) (up to 78 bytes for Oracle Tuxedo 8.0 or earlier)

Access

read-write

Description

Specifies the network address for communication between the domain gateway of the local domain access point and the SNA CRM.

tuxDMSnaCRMDmNWDevice

Syntax

`DisplayString` (`SIZE`(*`1..78`*))

Access

read-write

Description

Specifies the network device to be used for communication between the domain gateway of the local domain access point and the SNA CRM.

tuxDmSnaLinkTable

The `tuxDmSnaLinkTable` group contains objects that represent snax-specific configuration information for a remote domain access point.

Object Name	**Object ID**
`tuxDmSnaLinkDmSNALink`	.1.3.6.1.4.1.140.300.210.1.1.10
`tuxDmSnaLinkDmSNAStack`	.1.3.6.1.4.1.140.300.210.1.1.20
`tuxDmSnaLinkDmrAccessPoint`	.1.3.6.1.4.1.140.300.210.1.1.30
`tuxDmSnaLinkDmlSysID`	.1.3.6.1.4.1.140.300.210.1.1.40
`tuxDmSnaLinkDmrSysID`	.1.3.6.1.4.1.140.300.210.1.1.50
`tuxDmSnaLinkDmlUname`	.1.3.6.1.4.1.140.300.210.1.1.60
`tuxDmSnaLinkDmMinWin`	.1.3.6.1.4.1.140.300.210.1.1.70
`tuxDmSnaLinkDmModeName`	.1.3.6.1.4.1.140.300.210.1.1.80
`tuxDmSnaLinkState`	.1.3.6.1.4.1.140.300.210.1.1.90
`tuxDmSnaLinkDmSecType`	.1.3.6.1.4.1.140.300.210.1.1.100
`tuxDmSnaLinkDmStartType`	.1.3.6.1.4.1.140.300.210.1.1.110
`tuxDmSnaLinkDmMaxSNAsess`	.1.3.6.1.4.1.140.300.210.1.1.120
`tuxDmSnaLinkDmMaxSyncLvl`	.1.3.6.1.4.1.140.300.210.1.1.130

tuxDmSnaLinkDmSNALink

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-only

Description

This object is an identifier, unique within the scope of the SNA LINK entries within the domain configuration, used to identify rows in this table.

tuxDmSnaLinkDmSNAStack

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-write

Description

The name of the `snax` stack entry to be used to reach this remote domain access point.

tuxDmSnaLinkDmrAccessPoint

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-write

Description

Identifies the remote domain access point name for which this entry provides the `snax` configuration data.

tuxDmSnaLinkDmlSysID

Syntax

`DisplayString` (`SIZE(`*`1..4`*`)`)

Access

read-write

Description

The local SYSID used when establishing an SNA link to the remote logical unit (LU).

tuxDmSnaLinkDmrSysID

Syntax

`DisplayString` (`SIZE(`*`1..4`*`)`)

Access

read-write

Description

The remote SYSID used when establishing an SNA link to the remote logical unit (LU).

tuxDmSnaLinkDmlUname

Syntax

`DisplayString` (`SIZE(`*`1..8`*`)`)

Access

read-write

Description

Specifies the logical unit (LU) name associated with the remote domain access point.

tuxDmSnaLinkDmMinWin

Syntax

`INTEGER`

Access

read-write

Description

The minimum number of winner sessions to the remote LU.

tuxDmSnaLinkDmModeName

Syntax

`DisplayString` (`SIZE`(*`1..8`*))

Access

read-write

Description

Specifies the name associated with the session characteristics for sessions to the remote LU.

tuxDmSnaLinkState

Syntax

`INTEGER { valid(1) | invalid(2)}`

Access

read-write

Description

This object denotes the current state of the `tuxDmSnaLink` instance.

`GET requests:`
- `valid(1)`: The object exists.

`SET requests:`
- `invalid(2)`: The object is deleted.

tuxDmSnaLinkDmSecType

Syntax

`INTEGER { local(1) | identify(2) | verify(3) | persistent(4) | mixidpe(5) }`

Access

read-write

Description

Specifies the type of SNA security to be used on sessions to the remote logical unit. Valid values for this object are `local`, `identify`, `verify`, `persistent`, and `mixidpe`.

tuxDmSnaLinkDmStartType

Syntax

`INTEGER { auto(1) | cold(2)}`

Access

read-write

Description

Specifies the type of session start-up for the destination logical unit (LU).

`auto(1)`
The SNACRM, in conjunction with the domain gateway, chooses whether to `COLDSTART` or `WARMSTART` the LU.

`cold(2)`
Forces a `COLDSTART` with the LU.

tuxDmSnaLinkDmSNAsess

Syntax

`INTEGER (0..32767)`

Access

read-write

Description

Specifies maximum number of sessions to establish with the remote LU.

tuxDmSnaLinkDmMaxSyncLvl

Syntax

`INTEGER (0..2)`

Access

read-only

Description

The maximum SYNC LEVEL that can be support to this remote LU.

tuxDmSnaStackTable

The `tuxDmSnaStackTable` group defines an SNA stack to be used by a specific SNA CRM.

Object Name	Object ID
`tuxDmSnaStackDmSnaStack`	.1.3.6.1.4.1.140.300.220.1.1.10
`tuxDmSnaStackDmSnaCRM`	.1.3.6.1.4.1.140.300.220.1.1.20
`tuxDmSnaStackDmStackType`	.1.3.6.1.4.1.140.300.220.1.1.30
`tuxDmSnaStackDmlUname`	.1.3.6.1.4.1.140.300.220.1.1.40
`tuxDmSnaStackDmTpName`	.1.3.6.1.4.1.140.300.220.1.1.50
`tuxDmSnaStackDmStackParams`	.1.3.6.1.4.1.140.300.220.1.1.60
`tuxDmSnaStackState`	.1.3.6.1.4.1.140.300.220.1.1.70

tuxDmSnaStackDmSnaStack

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-only

Description

The name of this `tuxDmSnaStack` entry. This object is an identifier, unique within the scope of the `tuxDmSnaStackTable` in the domain configuration.

tuxDmSnaStackDmSnaCRM

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-write

Description

Identifies the `tuxDmSnaCRM` table entry of the SNA CRM in which this SNA protocol stack definition is used.

tuxDmSnaStackDmStackType

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-write

Description

Identifies the protocol stack to be used.

tuxDmSnaStackDmLUname

Syntax

`DisplayString` (`SIZE`(*`1..8`*))

Access

read-write

Description

Specifies the LU name to be used on sessions established using this stack definition.

tuxDmSnaStackDmTpName

Syntax

`DisplayString` (`SIZE(`*`1..8`*`)`)

Access

read-write

Description

Specifies the TP name associated with the SNA stack. A value of "*" means accept any TP name.

tuxDmSnaStackDmStackParams

Syntax

`DisplayString` (`SIZE(`*`1..128`*`)`)

Access

read-write

Description

Provides protocol stack specific parameters.

tuxDmSnaStackState

Syntax

`INTEGER { valid(1) | invalid(2)}`

Access

read-write

Description

This object denotes the current state of the `tuxDmSnaStack` instance.

`GET requests:`
`valid(1)`: The object exists.

`SET requests:`
`invalid(2)`: The object is deleted.

tuxDmTdomainTable

The `tuxDmTdomainTable` group defines the domain-specific configuration for a local or remote domain access point.

Object Name	**Object ID**
`tuxDmTdomainDmAccessPoint`	.1.3.6.1.4.1.140.300.240.1.1.10
`tuxDmTdomainDmNwAddr`	.1.3.6.1.4.1.140.300.240.1.1.20
`tuxDmTdomainState`	.1.3.6.1.4.1.140.300.240.1.1.30
`tuxDmTdomainDmNwDevice`	.1.3.6.1.4.1.140.300.240.1.1.40
`tuxDmTdomainDmCmpLimit`	.1.3.6.1.4.1.140.300.240.1.1.50
`tuxDmTdomainDmFailOverSeq`	.1.3.6.1.4.1.140.300.240.1.1.60
`tuxDmTdomainDmMinEncriptBits`	.1.3.6.1.4.1.140.300.240.1.1.70
`tuxDmTdomainDmMaxEncriptBits`	.1.3.6.1.4.1.140.300.240.1.1.80

tuxDmTdomainDmAccessPoint

Syntax

`DisplayString` (`SIZE`(*`1..24`*))

Access

read-only

Description

The local or remote domain access point name for which this entry provides the TDomain-specific configuration data.

When domain-level failover is in use, more than one `tuxDmTdomainTable` entry can be defined with the same `tuxTDmTdomainDmAccessPoint`.

tuxDmTdomainDmNwAddr

Syntax

`DisplayString` (`SIZE`(*`1..24`*))

Access

read-only

Description

Specifies the network address associated with the access point.

For a local domain access point, this object supplies the address used to listen for incoming connections.

For a remote domain access point, this object supplies the destination used when you connect to a remote domain access point.

The value of this object must be unique across all `tuxDmTdomainTable` objects.

tuxDmTdomainState

Syntax

`INTEGER { valid(1) | invalid(2) }`

Access

read-write

Description

This object denotes the current state of the `tuxDmTdomain` instance.

`GET requests:`

`valid(1)`: The object exists.

`SET requests:`

`invalid(2)`: Delete the object.

tuxDmTdomainDmNwDevice

Syntax

`DisplayString` (`SIZE`(*`1..78`*))

Access

read-write

Description

Specifies the network device used.

For a local domain access point, this object specifies the device used for listening.

For a remote domain access point, this object specifies the device used to connect to the remote domain access point.

tuxDmTdomainDmCmpLimit

Syntax

`INTEGER`

Access

read-write

Description

This object is relevant to remote domain access points only. It specifies the threshold over which compression occurs for traffic on connections to this access point.

tuxDmTdomainDmFailOverSeq

Syntax

`INTEGER (0..32767)`

Access

read-write

Description

This object is relevant to remote domain access points only. It specifies the position of this set of addressing in the failover sequence for this remote domain access point. If no failover sequence number is supplied, the first entry for this remote domain access point is allocated the number 10 greater than the highest failover sequence number known for the remote domain access point. Thus, the first entry gets 10, the second, 20, and so on.

tuxDmTdomainDmMinEncriptBits

Syntax

`INTEGER { enc-0-bit(1) | enc-40-bits(2) | enc-56-bits(3) | enc-128-bits(4)}`

Access

read-write

Description

This object is relevant to remote domain access points only. When establishing a network link to this access point, this object specifies the minimum level of encryption required.

`enc-0-bit(1)`

No encryption

`enc-40-bits(2)`**,** `enc-56-bits(3)`**, and** `enc-128-bits(4)`

These values specify the encryption length (in bits).

If this minimum level of encryption is not met, link establishment fails. The default value is `enc-0-bit`.

tuxDmTdomainDmMaxEncriptBits

Syntax

`INTEGER { enc-0-bit(1) | enc-40-bits(2) | enc-56-bits(3) | enc-128-bits(4)}`

Access

read-write

Description

This object is relevant to remote domain access points only. When establishing a network link to this access point, this object specifies the maximum level of encryption required.

`enc-0-bit(1)`
No encryption

`enc-40-bits(2)`**,** `enc-56-bits(3)`**, and** `enc-128-bits(4)`
These values specify the encryption length (in bits).

The default value is `enc-128-bits`.

Note: Modifications to this object do not affect established connections.

tuxDmTransactionTable

The `tuxDmTransactionTable` group contains objects that represent information about transactions that span domains. This object can be used to find out what remote domain access points are involved in the transaction, the parent domain access point, the transaction state, and other information.

Object Name	Object ID
`tuxDmTransactionDmlAccessPoint`	.1.3.6.1.4.1.140.300.260.1.1.10
`tuxDmTransactionDmTpTranID`	.1.3.6.1.4.1.140.300.260.1.1.20
`tuxDmTransactionState`	.1.3.6.1.4.1.140.300.260.1.1.30
`tuxDmTransactionDmTxAccessPoint`	.1.3.6.1.4.1.140.300.260.1.1.40
`tuxDmTransactionDmTxNetTranID`	.1.3.6.1.4.1.140.300.260.1.1.50
`tuxDmTransactionDmBranchCount`	.1.3.6.1.4.1.140.300.260.1.1.60
`tuxDmTransactionDmBranchIndex`	.1.3.6.1.4.1.140.300.260.1.1.70
`tuxDmTransactionDmBranchNo`	.1.3.6.1.4.1.140.300.260.1.1.80
`tuxDmTransactionDmrAccessPoint`	.1.3.6.1.4.1.140.300.260.1.1.90
`tuxDmTransactionDmNetTranID`	.1.3.6.1.4.1.140.300.260.1.1.100
`tuxDmTransactionDmBranchState`	.1.3.6.1.4.1.140.300.260.1.1.110

tuxDmTransactionDmlAccessPoint

Syntax

DisplayString (`SIZE`(*1..30*))

Access

read-only

Description

The name of the local domain access point with which the transaction is associated. This object is a required field for `GET` operations. For `SET` operations, this object must be specified.

tuxDmTransactionDmTPTranID

Syntax

DisplayString (`SIZE`(*1..24*))

Access

read-write

Description

The transaction identifier returned from `tpsuspend(3c)` mapped to a string representation. The data in this field should not be interpreted directly by the user, except for equality comparison. For `SET` operations, this object must be specified.

tuxDmTransactionState

Syntax

```
INTEGER { aborted(1) | abortonly(2) | active(3) | comcalled(4) | decided(5)
| done(6) | habort(7) | hcommit(8) | heuristic(9) | ready(10) | unknown(11)
| invalid(12) }
```

Access

read-write

Description

This object denotes the current state of the `tuxDmTransaction` instance.

`GET requests:`

`aborted(1)`: The transaction is being rolled back.

`abortonly(2)`: The transaction has been identified for rollback.

`active(3)`: The transaction is active.

`comcalled(4)`: The transaction has initiated the first phase of commitment.

`decided(5)`: The transaction has initiated the second phase of commitment.

`done(6)`: The transaction has completed the second phase of commitment.

`habort(7)`: The transaction has been heuristically rolled back.

`hcommit(8)`: The transaction has been heuristically committed.

`heuristic(9)`: The transaction commitment or rollback has completed heuristically.

`ready(10)`: The transaction has completed the first phase of a two-phase commit. All the participating groups and remote domains have completed the first phase of commitment and are ready to be committed.

`unknown(11)`: It was not possible to determine the state of the transaction.

`SET requests:`

`invalid(12)`: Forget the specified table entry. This state change is only valid in states HCOmmit and HABort.

tuxDmTransactionDmTxAccessPoint

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-only

Description

If the transaction originated from a remote domain, this object value is the name of the remote domain access point through which the transaction originated. If the transaction originated within this domain, this value is the name of the local domain access point.

tuxDmTransactionDmTxNetTranID

Syntax

`DisplayString` (`SIZE`(*`1..78`*))

Access

read-only

Description

If the transaction originated from a remote domain, this object value is the external transaction identifier received from the remote domain access point through which the transaction originated. If the transaction originated within this domain, the object contains the same value as the

tuxDmTransactionDmBranchCount

Syntax

`INTEGER`

Access

read-only

Description

The number of branches to remote domain access points involved in the transaction. For a domain gateway that does not make branch information available, this value is zero.

tuxDmTransactionDmBranchIndex

Syntax

`INTEGER`

Access

read-only

Description

The index of the first branch-specific object values (`tuxDmTransactionDmBranchNo`, `tuxDmTransactionDmrAccessPoint`, `tuxDmTransactionDmNetTranID`, and `tuxDmTransactionDmBranchState`) corresponding to this object.

tuxDmTransactionDmBranchNo

Syntax

`INTEGER`

Access

read-only

Description

The branch number of the participating branch (numbered from zero).

tuxDmTransactionDmrAccessPoint

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-only

Description

The name of the remote domain access point for this branch.

tuxDmTransactionDmNetTranID

Syntax

`DisplayString` (`SIZE`(*`1..78`*))

Access

read-only

Description

The external transaction identifier used with the remote domain access point for this branch. Some types of domain gateways do not return this information; in this scenario, this object is set to the empty string. For example, TDomains uses the local transaction identifier in `tuxDmTransactionDmTpTranID` for branches to remote domain access points and sets this value to the empty string.

tuxDmTransactionDmBranchState

Syntax

```
INTEGER { aborted(1) | abortonly(2) | active(3) | comcalled(4) | decided(5)
| done(6) | habort(7) | hcommit(8) | heuristic-hazard(9) |
heuristic-mixed(10) | ready(11) | unknown(12) }
```

Access

read-write

Description

A `GET` operation retrieves run-time information for the transaction branch (when the information is available for a particular domain gateway type).

`GET requests:`

`ABorteD(1)`: The transaction branch is being rolled back.

`ABortonlY(2)`: The transaction branch has been identified for rollback.

`ACTive(3)`: The transaction branch is active.

`COMcalled(4)`: The transaction branch has initiated the first phase of commitment.

`DECided(5)`: The transaction branch has initiated second phase of commitment.

`DONe(6)`: The transaction branch has completed the second phase of commitment.

`HABort(7)`: The transaction has been heuristically rolled back.

`HCOmmit(8)`: The transaction has been heuristically committed.

`Heuristic HaZard(9)`: Communications for the transaction branch failed and it has not been determined if rollback completed successfully.

`Heuristic MIxed(10)`: The transaction commitment or rollback for the transaction branch has completed and the remote domain has reported that the state of some of the resources used for the commitment or rollback is not consistent with the outcome of the transaction.

`REAdy 11)`: The transaction has completed the first phase of a two-phase commit. All the participating groups and remote domains have completed the first phase of commitment and are ready to be committed.

`UNKnown(12)`: The state of the transaction could not be determined.

Oracle Domain List MIB

The Oracle Domain List MIB consists of one group name `beaDomainList`. This group contains objects that represent the information about the Oracle Tuxedo domain that the Tuxedo SNMP agent is monitoring, as specified at startup. Note that row creation is not allowed in this MIB group, and that a minimal `tuxconfig` file must exist before you can start the agent.

The `beaDomainList` MIB group consists of the following objects.

Object Name	Object ID
`beaDomainKey`	.1.3.6.1.4.1.140.305.1.1
`beaLogicalAgentName`	.1.3.6.1.4.1.140.305.1.2
`beaDomainId`	.1.3.6.1.4.1.140.305.1.3
`beaDomainTuxdir`	.1.3.6.1.4.1.140.305.1.4
`beaDomainTuxconfig`	.1.3.6.1.4.1.140.305.1.5
`beaDomainStatus`	.1.3.6.1.4.1.140.305.1.6

beaDomainKey

Syntax

`INTEGER` *`(32769..262143)`*

Access

read-only

Description

Numeric key for the well-known address in a Tuxedo system bulletin board. In a single-processor environment, this key names the bulletin board. In a multi-processor environment, this key names the message queue of the Distinguished Bulletin Board Liaison (DBBL). This key is used as the basis for deriving the names of resources other than the well-known address, such as the names for the bulletin boards throughout the application.

beaLogicalAgentName

Syntax

`DisplayString` (`SIZE`(`1..32`))

Access

read-only

Description

The logical agent name of the agent as specified in the `-l` option when the Tuxedo SNMP agent was started (UNIX systems). On Windows NT systems, the logical agent name is the name of the Windows NT service used to start the agent. This name is the name of the agent that monitors the domain. If there are multiple SNMP agents running on a managed node, this name needs to be appended to the community string with an `@` sign when sending an SNMP request to the agent. For example, if there are two logical agents `simp_snmpd` and `bank_snmpd`, the default communities used to query values from these agents would be `public@simp_snmpd` and `public@bank_snmpd`, respectively. To run multiple agents on the same managed node, they must be run as subagents (without the `-s` option) with the Oracle SNMP Agent Integrator.

beaDomainId

Syntax

`DisplayString` (`SIZE`(`1..30`))

Access

read-only

Description

This object is the Oracle domain identifier of the domain being managed by this agent. This object is optional.

beaDomainTuxdir

Syntax

`DisplayString` (`SIZE(`*`1..256`*`)`) (up to 78 bytes for Oracle Tuxedo 8.0 or earlier)

Access

read-only

Description

The *`tuxdir`* value for the domain being managed by this agent. *`tuxdir`* is the absolute pathname to the directory where the Tuxedo software is found on the master machine.

beaDomainTuxconfig

Syntax

`DisplayString` (`SIZE(`*`1..256`*`)`) (up to 64 bytes for Oracle Tuxedo 8.0 or earlier)

Access

read-only

Description

The absolute location, including filename, for the configuration file of the domain being managed by this agent.

beaDomainStatus

Syntax

`INTEGER { active(1), inactive(2) }`

Access

read-only

Description

This object represents the current state of the domain being managed. The states and their interpretation are the same as for `tuxTdomainState`.

CORBA Interface MIB

The CORBA Interface MIB defines the Common Object Request Broker Architecture (CORBA) interface groups and objects specific to Oracle Tuxedo 8.0 or later applications. The CORBA Interface MIB consists of the following groups:

Group Name	Description
`tuxFactoryTable`	This group contains objects that represent occurrences of factories registered with the FactoryFinder. The available factories for the Tuxedo 8.0 or later application are reflected in this MIB group.
`tuxInterfaceTable`	This group contains objects that represent the configuration and run-time characteristics of CORBA interfaces at both the domain and server group levels.
`tuxLclInterfaceTable`	The object instances in this group return local `tuxInterfaceTable` objects for the local host on which Oracle SNMP Agent is running.

Group Name	Description
`tuxIfQueueTable`	The object instances in this group represent the run-time characteristics of an interface for a particular server queue (`tuxTqueue`).
`tuxLclIfQueueTable`	The object instances in this group represent the local objects of `tuxIfQueueTable` instances. These values are specific to the host on which Oracle SNMP Agent is running.

In addition to the objects in these groups, the "Core MIB" on page 2-1 contains the following CORBA interface specific objects:

- `tuxMaxObjects`
- `tuxMaxInterfaces`
- `tuxCurInterfaces`
- `tuxHwInterfaces`
- `tuxMachineMaxObjects`
- `tuxMachineCurObjects`
- `tuxMachineHwObjects`
- `tuxSrvrCurObjsExt`
- `tuxSrvrCurInterfaceExt`
- `tuxTranGstate`

For more information on these objects, see "Core MIB" on page 2-1.

tuxFactoryTable

The `tuxFactoryTable` group contains objects that represent occurrences of factories registered with the FactoryFinder.

Object Name	Object ID
`tuxFactorySerNo`	.1.3.6.1.4.1.140.300.48.1.1
`tuxFactoryId`	.1.3.6.1.4.1.140.300.48.1.2

Object Name	Object ID
`tuxFactoryIfName`	.1.3.6.1.4.1.140.300.48.1.3
`tuxFactoryState`	.1.3.6.1.4.1.140.300.48.1.4

tuxFactorySerNo

Syntax

`INTEGER`

Access

read-only

Description

This object is the running number used as the index to instances in this table.

tuxFactoryId

Syntax

`DisplayString` (`SIZE`(*`1..256`*))

Access

read-only

Description

The registered ID for the factory.

tuxFactoryIfName

Syntax

`DisplayString` (`SIZE`(*`1..128`*))

Access

read-only

Description

The fully qualified interface name used as the interface repository ID for the factory. The format of this name depends on the options specified in the Interface Definition Language (IDL) that generates the interface implementation. For details, consult the CORBA 2.1 specification, section 7.6.

tuxFactoryState

Syntax

`INTEGER { active(1) }`

Access

read-only

Description

A `GET` operation retrieves run-time information for the selected `tuxFactoryTable` instance or instances. The returned value is 1 (`active`) if the instance is registered with the FactoryFinder.

tuxInterfaceTable

The `tuxInterfaceTable` group contains objects that represent configuration and run-time characteristics of CORBA interfaces at both the domain and server group levels. There are certain semantic differences in the objects of this group between domain level and server group level instances, as explained in the following discussions for `tuxInterfaceTable`.

tuxInterfaceTable

A domain level `tuxInterfaceTable` instance is not associated with a Server group. In this case, its `tuxIfSrvGrp` object has the invalid value `*`.

A server group level instance has an associated Server group. In this case, its `tuxIfSrvGrp` object has a valid server group name for the domain. This server group level representation of an interface also provides a container for managing the interface state (the `tuxIfState` object) and for collecting accumulated statistics.

Every CORBA interface that is activated in a server must have a server group level `tuxInterfaceTable` instance. The activation of interfaces in a server is controlled by the state of a `tuxIfQueue` instance for the interface. Activation of a `tuxIfQueue` instance causes its objects to be initialized with values specified for the associated server group level `tuxInterfaceTable` instance. If such an instance does not already exist, then one is dynamically created. This dynamically created server group level `tuxInterfaceTable` instance is initialized with the objects of the domain level `tuxInterfaceTable` instance for the interface, if one exists. If an associated domain level instance does not exist, system-specified default configuration values are used. After they are activated, interfaces are always associated with a server group level `tuxInterfaceTable` instance.

The specification of configuration objects for interfaces at any level is optional. Interfaces offered by a server are identified through the ICF file used for generating skeletons. The interfaces are advertised automatically by the system when the server is activated.

tuxInterfaceTable Objects

The following table lists the objects within the `tuxInterfaceTable`.

Object Name	Object ID
`tuxIfSerNo`	.1.3.6.1.4.1.140.300.53.1.1.1
`tuxIfName`	.1.3.6.1.4.1.140.300.53.1.1.2
`tuxIfSrvGrp`	.1.3.6.1.4.1.140.300.53.1.1.3
`tuxIfState`	.1.3.6.1.4.1.140.300.53.1.1.4
`tuxIfAutoTran`	.1.3.6.1.4.1.140.300.53.1.1.5
`tuxIfLoad`	.1.3.6.1.4.1.140.300.53.1.1.6
`tuxIfPrio`	.1.3.6.1.4.1.140.300.53.1.1.7
`tuxIfTimeout`	.1.3.6.1.4.1.140.300.53.1.1.8
`tuxIfTranTime`	.1.3.6.1.4.1.140.300.53.1.1.9
`tuxIfFbRoutingName`	.1.3.6.1.4.1.140.300.53.1.1.10
`tuxIfLmid`	.1.3.6.1.4.1.140.300.53.1.1.11
`tuxIfNumServers`	.1.3.6.1.4.1.140.300.53.1.1.12

Object Name	**Object ID**
`tuxIfTpPolicy`	.1.3.6.1.4.1.140.300.53.1.1.13
`tuxIfTxPolicy`	.1.3.6.1.4.1.140.300.53.1.1.14

tuxIfSerNo

Syntax

`INTEGER`

Access

read-only

Description

This object value is the running number used as an index to instances in this table.

tuxIfName

Syntax

`DisplayString` (`SIZE`(*`1..128`*))

Access

read-only

Description

The fully qualified interface name used as the interface ID. The format of this name is one of the options specified in the IDL that generates the interface implementation. For details, consult the CORBA 2.1 specification, Section 7.6.

tuxIfSrvGrp

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-write

Description

The server group name. Server group names cannot contain an asterisk, comma, or colon. An asterisk (`*`) specified as a value for this object specifies a domain level instance.

Note: This object can be `SET` only during creation of a new row.

tuxIfState

Syntax

`INTEGER { active(1), inactive(2), suspended(3), partitioned(4), invalid(5), reactivate(6) }`

Access

read-write

Description

The semantics for `GET` and `SET` requests differ between server group and domain level instances as noted in the following list.

`GET:{active(1)|inactive(2)|suspended(3)|partitioned(4)}`

A `GET` request retrieves configuration information for the selected `tuxInterfaceTable` instance or instances. The only states that can be returned are: `active`, `inactive`, `suspended`, `partitioned`.

`active(1)`

The `tuxInterfaceTable` instance is defined and at least one corresponding `tuxIfQueueTable` instance is in the active state. For a server group level `tuxInterfaceTable` instance, corresponding `tuxIfQueueTable` instances are those with matching `tuxIfName` and `tuxIfSrvGrp` objects. For a domain level `tuxInterfaceTable` instance, corresponding `tuxIfQueueTable` instances are those with matching `tuxIfName` value regardless of their `tuxIfSrvGrp` value.

`inactive(2)`

The `tuxInterfaceTable` instance is defined and there are no corresponding `tuxIfQueueTable` instances in any active state.

`suspended(3)`

The `tuxInterfaceTable` instance is defined and among all corresponding `tuxIfQueueTable` instances, there are none in the active state and at least one in the suspended state.

`partitioned(4)`

The `tuxInterfaceTable` instance is defined and among all the corresponding `tuxIfQueueTable` instances, there are none in the active state, none in the suspended state, and at least one in the partitioned state.

`SET: {invalid(5)|active(1)|inactive(2)|reactivate(6)|suspended(3)}`

A `SET` request updates run-time and configuration information for the selected `tuxInterfaceTable` instance. Modifications can affect more than one server group when domain level changes are made, and run-time modifications can affect more than one server if multiple servers are currently offering an interface. Only the following values can be used in a `SET` request: `invalid`, `active`, `reactivate`, or `suspended`.

`invalid(5)`

Delete the `tuxInterfaceTable` instance for the application. This state change is allowed only when the instance is in the inactive state.

`active(1)`

Activate the `tuxInterfaceTable` instance for the application. Setting this state on a domain level instance has the effect of activating all corresponding `tuxIfQueueTable` instances that are currently suspended throughout the domain. Setting this state on a server group level instance affects only servers within the group offering the interface. This state change is allowed only when the instance is in the suspended state. A successful return leaves the object in the `active(1)` state.

`reactivate(6)`

Reactivates the `tuxInterfaceTable` instance. Setting this state on a domain level instance has the effect of activating all corresponding `tuxIfQueueTable` instances that are currently suspended throughout the domain. Setting this state on a server group level instance affects only servers within the group offering the interface. This state change is allowed only when the instance is in the `active(1)` or `suspended(3)` state. Successful return leaves the instance in the `active(1)` state. Setting this state permits global activation of `tuxIfQueueTable` instances suspended at the server group level without having to individually activate each server group level `tuxInterfaceTable` instance.

`suspended(3)`

Suspend the `tuxInterfaceTable` instance. Setting this state on the domain level object has the effect of suspending all corresponding `tuxIfQueueTable` instances that are currently active throughout the domain. Setting this state on a server group level instance affects only servers within the group offering the interface. This state change is permitted only in the `active(1)` state. Successful return leaves the object in the `suspended(3)` state.

Note: Dynamic advertisement of interfaces (that is, state change from `inactive(2)` or `invalid(5)` to `active(1)`) is not supported, nor is removal of advertisement (that is, state change from `active(1)` to `inactive(2)`).

tuxIfAutoTran

Syntax

```
INTEGER { yes(1), no(2) }
```

Access

read-write

Description

Signifies whether a transaction is automatically started for invocations made outside a transaction context.

This object has the following limitations:

- Run-time updates to this object are not reflected in active equivalent `tuxInterfaceTable` instances.
- The `tuxIfTxPolicy` object can override the value specified for this object in the `UBBCONFIG` file. If `tuxIfTxPolicy` is `always(1)`, a `tuxIfAutoTran` value of `no(2)` has no effect at run-time. Behavior is as though the setting were `yes(1)`. If `tuxIfTxPolicy` is `never(2)`, an `tuxIfAutoTran` value of `yes(1)` has no effect. The interface is never involved in a transaction. If `tuxIfTxPolicy` is `ignore(4)`, an `tuxIfAutoTran` value of `yes(1)` has no effect. The interface is never involved in a transaction.

tuxIfLoad

Syntax

```
INTEGER (1..32767)
```

Access

read-write

Description

This object imposes the indicated load on the system. Interface loads are used for load-balancing. That is, queues with higher enqueued workloads are less likely to be chosen for a new request.

Note: Run-time updates to this object for domain level instances do not affect corresponding server group level instances for the same interface.

tuxIfPrio

Syntax

`INTEGER (1..100)`

Access

read-write

Description

Dequeueing priority. If multiple interface requests are waiting on a queue for servicing, the higher priority requests are handled first.

Note: Run-time updates to this object for domain level instances do not affect corresponding server group level instances for the same interface.

tuxIfTimeout

Syntax

`INTEGER`

Access

read-write

Description

The time limit (in seconds) for processing individual method invocations for this interface. Servers that process method invocations for this interface are terminated abortively if they exceed the specified time limit in processing the request. A value of 0 for this object indicates that the server should not be terminated abortively.

Note: Run-time updates to this object for domain level instances do not affect corresponding server group level instances for the same interface.

tuxIfTranTime

Syntax

`INTEGER`

Access

read-write

Description

Transaction timeout value in seconds for transactions automatically started for this `tuxInterfaceTable` instance. Transactions are started automatically when a request not in transaction mode is received and the `tuxIfAutoTran` object value for the interface is `yes(1)`.

Note: Run-time updates to this object for domain level instances do not affect corresponding server group level instances for the same interface.

tuxIfFbRoutingName

Syntax

`DisplayString` (`SIZE`(*`1..15`*))

Access

read-write

Description

The factory-based routing criteria associated with this interface.

Note: This object can be set only for a domain level `tuxInterfaceTable` instance, that is, only if `tuxIfSrvGrp` is `*`.

tuxIfLmid

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-only

Description

Current logical machine with which the active equivalent server group level `tuxInterfaceTable` instance, is associated. This object value is `NULL` for domain level instances.

tuxIfNumServers

Syntax

`INTEGER`

Access

read-only

Description

The number of corresponding servers that offer this interface.

tuxIfTpPolicy

Syntax

`INTEGER { method(1), transaction(2), process(3) }`

Access

read-only

Description

The TP framework deactivation policy. This object value reflects the policy registered with the framework at server startup. The first server to register with the interface sets the value in `tuxInterfaceTable`. This value cannot be changed.

tuxIfTxPolicy

Syntax

`INTEGER { always(1), never(2), optional(3), ignore(4) }`

Access

read-only

Description

The transaction policy for the interface. This object value affects the `tuxIfAutoTran` object. This policy is set by the application developer and is registered when the server starts.

tuxLclInterfaceTable

The `tuxLclInterfaceTable` group returns values for the local host on which Oracle SNMP Agent is running. The following table lists the columnar objects that comprise each row (instance) in the group.

Object Name	**Object ID**
`tuxLclIfSerNo`	.1.3.6.1.4.1.140.300.53.2.1.1
`tuxLclIfName`	.1.3.6.1.4.1.140.300.53.2.1.2
`tuxLclSrvGrp`	.1.3.6.1.4.1.140.300.53.2.1.3
`tuxLclIfNcompleted`	.1.3.6.1.4.1.140.300.53.2.1.4
`tuxLclIfNqueued`	.1.3.6.1.4.1.140.300.53.2.1.5

tuxLclIfSerNo

Syntax

`INTEGER`

Access

read-only

Description

This object value is the running number, which is used as an index into the table.

tuxLclIfName

Syntax

`DisplayString` (`SIZE`(*`1..128`*))

Access

read-only

Description

The fully qualified interface name used as the interface repository ID for the interface. The format of this name depends on the options specified in the IDL that generates the interface implementation. For details, see the CORBA 2.1 Specification Section 7.6 [CORBA].

tuxLcIIfSrvGrp

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-only

Description

The server group name. Server group names cannot contain an asterisk, comma, or colon. A value of `*` for this object indicates a domain level interface.

tuxLcIIfNcompleted

Syntax

`INTEGER`

Access

read-only

Description

The number of method invocations completed for the corresponding `tuxIfQueueTable` instances since they were initially offered. The values returned are for the indicated interface on the local host where Oracle SNMP Agent is running.

Note: This object value is returned only when `tuxTdomainLoadBalance` is `yes(1)`.

tuxLclIfNqueued

Syntax

`INTEGER`

Access

read-only

Description

The number of requests currently enqueued for this interface. The values returned are for the indicated interface on the local host where Oracle SNMP Agent is running.

Note: This object value is returned only when `tuxTdomainLoadBalance` is `yes(1)`.

tuxIfQueueTable

The `tuxIfQueueTable` group contains objects that represent the run-time characteristics of an interface for a particular server queue. The objects provide access to the inherited configuration characteristics of an interface as well as statistics relating to the interface on the queue. This group gives administrators finer granularity in suspending and activating interfaces. This group provides the link between the interface name and the server processes capable of processing method invocations on the interface. For example, `tuxIfQRqAddr` can be used to identify the corresponding server in the `tuxTsrvrTbl` and `tuxTsrvrTblExt` groups.

Object Name	Object ID
`tuxIfQueueSerNo`	.1.3.6.1.4.1.140.300.53.3.1.1
`tuxIfQueueName`	.1.3.6.1.4.1.140.300.53.3.1.2
`tuxIfQueueSrvGrp`	.1.3.6.1.4.1.140.300.53.3.1.3
`tuxIfQueueRqAddr`	.1.3.6.1.4.1.140.300.53.3.1.4
`tuxIfQueueState`	.1.3.6.1.4.1.140.300.53.3.1.5
`tuxIfQueueAutoTran`	.1.3.6.1.4.1.140.300.53.3.1.6
`tuxIfQueueLoad`	.1.3.6.1.4.1.140.300.53.3.1.7
`tuxIfQueuePrio`	.1.3.6.1.4.1.140.300.53.3.1.8

Object Name	Object ID
`tuxIfQueueTimeout`	.1.3.6.1.4.1.140.300.53.3.1.9
`tuxIfQueueTranTime`	.1.3.6.1.4.1.140.300.53.3.1.10
`tuxIfQueueFbRoutingName`	.1.3.6.1.4.1.140.300.53.3.1.11
`tuxIfQueueLmid`	.1.3.6.1.4.1.140.300.53.3.1.12
`tuxIfQueueNumServers`	.1.3.6.1.4.1.140.300.53.3.1.13
`tuxIfQueueTpPolicy`	.1.3.6.1.4.1.140.300.53.3.1.14
`tuxIfQueueTxPolicy`	.1.3.6.1.4.1.140.300.53.3.1.15

tuxIfQueueSerNo

Syntax

`INTEGER`

Access

read-only

Description

The running number used as an index into this table.

tuxIfQueueName

Syntax

`DisplayString` (`SIZE`(*`1..128`*))

Access

read-only

Description

The fully qualified interface name used as the interface repository ID for the interface. The format of this name is dependent on the options specified in the IDL that generates the interface implementation. See the CORBA 2.1 specification Section 7.6 for details.

tuxIfQueueSrvGrp

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-only

Description

The server group name. Server group names cannot contain an asterisk, comma, or colon.

tuxIfQueueRqAddr

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-only

Description

The symbolic address of the request queue for an active server offering this interface. See `tuxTsrvrRqAddr` for more information about this object.

tuxIfQueueState

Syntax

`INTEGER { active(1), suspended(2), partitioned(3), unknown(4) }`

Access

read-write

Description

The values for `GET` and `SET` operations are as follows:

`GET:{active(1)|suspended(2)|partitioned(3)}`

A `GET` request retrieves configuration information for the selected `tuxIfQueueTable` instances. The meaning of the possible return values are as follows:

`active(1)`
: Represents an available interface in the running system.

`suspended(2)`
: Represents a currently suspended interface in the running system.

`partitioned(3)`
: Represents a currently partitioned interface in the running system.

`SET:{active(1)|suspended(2)}`
: The values for `SET` are:

`active(1)`
: Activates the `tuxIfQueueTable` instance. This state change is allowed only in the `suspended(2)` state. A successful return leaves instances in the `active(1)` state.

`suspended(2)`
: Suspends the `tuxIfQueueTable` instance. This state change is allowed only in the `active(1)` state. A successful return leaves the object in the `suspended(2)` state.

Note: Dynamic advertisement of interfaces (that is, a state change from inactive or invalid to active) is not supported, nor is unadvertisement (that is, a state change from active to inactive).

tuxIfQueueAutoTran

Syntax

`INTEGER { yes(1), no(2) }`

Access

read-only

Description

Signifies whether a transaction is automatically started for invocations made outside a transaction context.

This object has the following limitations:

- Run-time updates to this object are not reflected in active equivalent `tuxInterfaceTable` instances.
- The `tuxIfTxPolicy` object can override the value specified for this object in the `UBBCONFIG` file. If `tuxIfTxPolicy` is `always(1)`, an `tuxIfQueueAutoTran` value of `no(2)` has no effect at run-time. Behavior is as though the setting were `yes(1)`. If

`tuxIfTxPolicy` is `never(2)`, an `tuxIfQueueAutoTran` value of `yes(1)` has no effect. The interface is never involved in a transaction. If `tuxIfTxPolicy` is `ignore(4)`, an `tuxIfQueueAutoTran` value of `yes(1)` has no effect. The interface is never involved in a transaction.

tuxIfQueueLoad

Syntax

`INTEGER (1..32767)`

Access

read-only

Description

Load imposed on the system by this instance. Interface loads are used for load-balancing. Queues with higher enqueued workloads are less likely to be chosen for a new request.

tuxIfQueuePrio

Syntax

`INTEGER (1..101)`

Access

read-only

Description

Dequeueing priority. If multiple interface requests are waiting on a queue for servicing, the higher priority requests are handled first.

tuxIfQueueTimeout

Syntax

`INTEGER`

Access

read-only

Description

The time limit (in seconds) for processing individual method invocations for this interface. Servers processing method invocations for this interface are abortively terminated if they exceed the specified time limit in processing the request. A value of 0 for this object indicates that the server should not be abortively terminated.

tuxIfQueueTranTime

Syntax

`INTEGER`

Access

read-only

Description

The transaction timeout value in seconds for transactions automatically started for this instance. Transactions are started automatically when a request not in transaction mode is received and the `tuxIfAutoTran` object value for the interface is `yes(1)`.

tuxIfQueueFbRoutingName

Syntax

`DisplayString` (`SIZE`(*`1..15`*))

Access

read-only

Description

The factory-based routing criterion associated with this interface.

tuxIfQueueLmid

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-only

Description

The current logical machine on which this queue is offering this interface.

tuxIfQueueNumServers

Syntax

`INTEGER`

Access

read-only

Description

The number of corresponding servers that offer this interface on this queue.

tuxIfQueueTpPolicy

Syntax

`INTEGER { method(1), transaction(2), process(3) }`

Access

read-only

Description

The TP framework deactivation policy. This value reflects the policy registered with the framework at the server startup. The first server to register the interface sets the value. This value cannot be changed.

tuxIfQueueTxPolicy

Syntax

`INTEGER { always(1), never(2), optional(3), ignore(4)}`

Access

read-only

Description

The transaction policy for the interface. This object value affects the effect of the `tuxIfQueueAutoTran` object; see `tuxIfQueueAutoTran` for further explanation. This object value is always read-only, and is set by the developer when the server is built and registered at server startup.

tuxLclIfQueueTable

The `tuxLclIfQueueTable` group contains objects that represent the local characteristics of the `tuxIfQueueTable`. The object values are specific to the host on which Oracle SNMP Agent is running.

Object Name	Object ID
`tuxLclIfQueueSerNo`	.1.3.6.1.4.1.140.300.53.4.1.1
`tuxLclIfQueueName`	.1.3.6.1.4.1.140.300.53.4.1.2
`tuxLclIfQueueSrvGrp`	.1.3.6.1.4.1.140.300.53.4.1.3
`tuxLclIfQueueRqAddr`	.1.3.6.1.4.1.140.300.53.4.1.4
`tuxLclIfQueueNcompleted`	.1.3.6.1.4.1.140.300.53.4.1.5
`tuxLclIfQueueNqueued`	.1.3.6.1.4.1.140.300.53.4.1.6
`tuxLclIfQueueCurObjs`	.1.3.6.1.4.1.140.300.53.4.1.7
`tuxLclIfQueueCurTrans`	.1.3.6.1.4.1.140.300.53.4.1.8

tuxLclIfQueueSerNo

Syntax

`INTEGER`

Access

read-only

Description

The running number used as an index into this table.

tuxLcIIfQueueName

Syntax

`DisplayString` (SIZE(`1..128`))

Access

read-only

Description

The fully qualified interface name used as the interface repository ID for this interface. The format of this name is dependent on the options specified in the IDL that generates the interface implementation. For details, see the CORBA 2.1 specification Section 7.6.

tuxLcIIfQueueSrvGrp

Syntax

`DisplayString` (SIZE(`1..30`))

Access

read-only

Description

The server group name. Server group names cannot contain an asterisk, comma, or colon.

tuxLcIIfQueueRqAddr

Syntax

`DisplayString` (SIZE(`1..30`))

Access

read-only

Description

The symbolic address of the request queue for an active server that offers this interface. See `tuxTsrvrRqAddr` for more information about this object.

tuxLcIIfQueueNcompleted

Syntax

`INTEGER`

Access

read-only

Description

The number of interface method invocations completed since the interface was initially offered.

Note: This object value is returned only when `tuxTdomainLoadBalance` is equal to `yes(1)`.

tuxLcIIfQueueNqueued

Syntax

`INTEGER`

Access

read-only

Description

The number of requests currently enqueued for this interface.

Note: This object value is returned only when `tuxTdomainLoadBalance` is equal to `yes(1)`.

tuxLcIIfQueueCurObjs

Syntax

`INTEGER`

Access

read-only

Description

The number of active objects for this interface for the associated queue. This number represents the number of entries in the active object table for this queue on the associated machine. This number includes objects that are not in memory but were invoked within an active transaction.

tuxLcIIfQueueCurTrans

Syntax

`INTEGER`

Access

read-only

Description

The number of active global transactions associated with this interface for its associated queue.

Access Control List MIB

An access control list (ACL) specifies who and what is authorized to access Oracle Tuxedo system objects. The Access Control List MIB enables a system manager to administer Tuxedo security by authenticating users, setting permissions, and controlling access. It defines the objects controlled by the ACL facility. These MIB objects are grouped into three major categories.

The Access Control List MIB consists of the following groups.

Group Name	Description
`tuxTAclGrpTable`	ACL group
`tuxTAclPermTable`	ACL permissions
`tuxTAclPrinTbl`	ACL principal (users or domains)

For Tuxedo security, define application security options in the Domain group. This group lets you specify a user identity and security type used by your Tuxedo application. The users and remote domains in an application that need authentication and authorization are collectively known as *principals*. The managed objects for getting or setting the values of principals are defined in the `tuxTAclPrinTbl` group. The managed objects for getting or setting the values of ACL groups are defined in the `tuxTAclGrpTable`. The Access Control List MIB, as a whole, specifies the principals and access control lists for Tuxedo applications services, application queues, and events. You can define these ACL *permissions* for service, event, and application queue names. The managed objects that enable you to do define the ACL permissions are defined in the `tuxTAclPermTable` group. All these ACL MIB groups and their objects are described in the following sections.

tuxTAclGrpTable

The `tuxTAclGrpTable` group contains objects that represent groups of Tuxedo application users and domains. The following table lists the managed objects that are part of the `tuxTAclGrpTable` group. To create a new row in the table, it is necessary to issue a `SET` request for a non-existing row.

Object Name	Object ID
`tuxTAclGrpName`	.1.3.6.1.4.1.140.300.11.1.1.1.1
`tuxTAclGrpId`	.1.3.6.1.4.1.140.300.11.1.1.1.2
`tuxTAclGrpState`	.1.3.6.1.4.1.140.300.11.1.1.1.3

tuxTAclGrpName

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-write

Description

Logical name of the group. A group name is a string of printable characters and cannot contain a pound sign, comma, colon, or newline.

Note: This object can be set only during row creation.

tuxTAclGrpId

Syntax

`INTEGER (0..16384)`

Access

read-write

Description

Group identifier associated with this user. A value of 0 indicates the default group `other`. If the group identifier is not specified at creation time, it defaults to the next available (unique) identifier greater than 0.

tuxTAclGrpState

Syntax

`INTEGER { valid(1), invalid(2) }`

Access

read-write

Description

The values for `GET` and `SET` operations are as follows:

`GET: valid(1)`
A `GET` operation retrieves configuration information for the selected `tuxTAclGrpTable` instance(s). The following state indicates the meaning of a `tuxTAclGrpState` returned in response to a `GET` request. States not listed are not returned.

`valid(1)`
`tuxTAclGrpTable` instance is defined and inactive. Note that `valid(1)` is the only valid state for this class. ACL groups are never active.

`SET: invalid(2)`
A `SET` operation updates configuration information for the selected `tuxTAclGrpTable` instance. The following state indicates the meaning of a `tuxTAclGrpState` set in a `SET` request. States not listed might not be set.

`invalid(2)`
Delete `tuxTAclGrpTable` instance for application. Successful return removes the instance from the table.

tuxTAclPermTable

The `tuxTAclPermTable` group indicates what groups are allowed to access Tuxedo system entities. These entities are named by a string. The names currently represent service names, event names, and application queue names. To create a new row in this table, it is necessary to issue a `SET` request for a non-existing row that specifies at least the values for `tuxTAclPermName` and `tuxTAclPermType`.

Object Name	Object ID
`tuxTAclPermName`	.1.3.6.1.4.1.140.300.11.2.1.1.1
`tuxTAclPermType`	.1.3.6.1.4.1.140.300.11.2.1.1.2
`tuxTAclPermGrpIds`	.1.3.6.1.4.1.140.300.11.2.1.1.3
`tuxTAclPermState`	.1.3.6.1.4.1.140.300.11.2.1.1.4

tuxTAclPermName

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-write

Description

The name of the entity for which permissions are being granted. The name can represent a service name, an event name, and/or a queue name. An ACL name is a string of printable characters and cannot contain a colon, pound sign, or newline.

Note: This object can be set only during row creation.

tuxTAclPermType

Syntax

`INTEGER { enq(1), deq(2), service(3), postevent(4) }`

Access

read-write

Description

The type of the entity for which permissions are being granted.

Note: This object can be set only during row creation.

tuxTAclPermGrpIds

Syntax

`DisplayString` (`SIZE`(*`0..800`*))

Access

read-write

Description

A comma-separated list of group identifiers (numbers) that are permitted access to the associated entity.

tuxTAclPermState

Syntax

```
INTEGER { valid(1), invalid(2) }
```

Access

read-write

Description

The values for `GET` and `SET` operations are as follows:

`GET: valid(1)`

A `GET` operation retrieves configuration information for all selected entities. The following state indicates the meaning of a `tuxTAclPermState` returned in response to a `GET` request. States not listed are not returned.

`valid(1)`

`tuxTAclPermState` instance is defined. Note that `valid(1)` is the only valid state for this class. ACL permissions are never active.

`SET: invalid(2)`

A `SET` operation updates configuration information for the selected `tuxTAclPermState` instance. The following state indicates the meaning of a `tuxTAclPermState` set in a `SET` request. States not listed might not be set.

`invalid(2)`

Delete `tuxTAclPermState` instance for application. State change allowed only when in the `valid(1)` state. Successful return leaves the object in the `invalid(2)` state.

Note: The `tuxTAclPermTable` instance refers to all groupids related to a particular `tuxTAclPermName` in the table.

tuxTAclPrinTbl

The `tuxTAclPrinTbl` group contains objects that represent users or domains that can access a Tuxedo application and the group with which they are associated. To join the application as a specific user, it is necessary to present a user-specific password. To create a new row in this table, it is necessary to issue a `SET` request for a non-existing row (instance).

Object Name	Object ID
`tuxTAclPrinName`	.1.3.6.1.4.1.140.300.11.3.1.1.1
`tuxTAclCltName`	.1.3.6.1.4.1.140.300.11.3.1.1.2
`tuxTAclPrinId`	.1.3.6.1.4.1.140.300.11.3.1.1.3
`tuxTAclPrinGrp`	.1.3.6.1.4.1.140.300.11.3.1.1.4
`tuxTAclPrinPasswd`	.1.3.6.1.4.1.140.300.11.3.1.1.5
`tuxTAclPrinState`	.1.3.6.1.4.1.140.300.11.3.1.1.6

tuxTAclPrinName

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-write

Description

Logical name of the user or domain (a principal). A principal name is a string of printable characters and cannot contain a pound sign, colon, or newline.

Note: This object can be set only during row creation.

tuxTAclCltName

Syntax

DisplayString (`SIZE`(*1..30*))

Access

read-write

Description

The client name associated with the user. It generally describes the role of the associated user and provides a further qualifier on the user entry. If the client name is not specified at creation time, the default is the wildcard asterisk (*). A client name is a string of printable characters and cannot contain a colon or newline.

tuxTAclPrinId

Syntax

`INTEGER (1..131072)`

Access

read-write

Description

Unique user identification number. If not specified at creation time, it defaults to the next available (unique) identifier greater than 0.

Note: This object can be set only during row creation.

tuxTAclPrinGrp

Syntax

`INTEGER (0..16384)`

Access

read-write

Description

Group identifier associated with this user. A value of 0 indicates the default group `other`. If the group identifier is not specified at creation time, the default value 0 is assigned.

tuxTAclPrinPasswd

Syntax

`DisplayString`

Access

read-write

Description

The clear-text authentication password for the associated user. Note that the system automatically encrypts this information on behalf of the administrator.

tuxTAclPrinState

Syntax

`INTEGER { valid(1), invalid(2) }`

Access

read-write

Description

The values for `GET` and `SET` operations are as follows:

`GET: valid(1)`

A `GET` operation retrieves configuration information for the selected `tuxTAclPrinTbl` instance(s). The following state indicates the meaning of `tuxTAclPrinState`:

`valid(1)`

`tuxTAclPrinTbl` instance is defined and inactive. Note that `valid(1)` is the only valid state for this class. ACL principals are never active.

`SET: invalid(2)`

A `SET` operation updates configuration information for the selected `tuxTAclPrinTbl` instance. The following state indicates the meaning of a `tuxTAclPrinState` set in a `SET` request. States not listed might not be set.

`invalid(2)`

Delete `tuxTAclPrinTbl` instance for application. State change is allowed only when in the `valid(1)` state. Successful return leaves the object in the `invalid(2)` state.

Workstation MIB

Oracle Tuxedo systems can require clients to run on a workstation for purposes of security, performance, and convenience. A network administrator can define the environment required to control workstation clients using the Workstation MIB. This MIB is an extension of the Core MIB and specifies the information required to control access to a Tuxedo application from multiple workstations.

The Tuxedo Workstation subsystem consists of a workstation clients (WSC) library, the workstation listener (WSL) executable, and the workstation handler (WSH) executable. The Workstation MIB specifies information about workstation listeners and workstation handlers. The following table lists the two WSL and WSH groups through which you can manage a workstation listener and its associated workstation handler processes.

The Workstation MIB consists of the following groups.

Group Name	Description
`tuxTwshTbl`	Workstation Handler
`tuxTwslTbl`	Workstation Listener

You can define new workstation listeners in the `tuxTwslTbl` group, and you can obtain information about active workstation handlers from the `tuxTwshTbl` group.

tuxTwshTbl

The `tuxTwshTbl` table represents run-time characteristics of WSH client processes. These objects characterize workstation statistics specific to a particular WSH client process. Objects in this table are only accessible through a Tuxedo SNMP agent installed on the local machine. Objects are only accessible when the corresponding WSH is active.

Object Name	Object ID
`tuxTwshTaClientId`	.1.3.6.1.4.1.140.300.1.1.1.1
`tuxTwshTaWshClientId`	.1.3.6.1.4.1.140.300.1.1.1.2
`tuxTwshTaSrvGrp`	.1.3.6.1.4.1.140.300.1.1.1.3
`tuxTwshTaSrvId`	.1.3.6.1.4.1.140.300.1.1.1.4
`tuxTwshTaGrpNo`	.1.3.6.1.4.1.140.300.1.1.1.5
`tuxTwshTaState`	.1.3.6.1.4.1.140.300.1.1.1.6
`tuxTwshTaLmid`	.1.3.6.1.4.1.140.300.1.1.1.7
`tuxTwshTaPid`	.1.3.6.1.4.1.140.300.1.1.1.8
`tuxTwshTaNaddr`	.1.3.6.1.4.1.140.300.1.1.1.9
`tuxTwshTaHwClients`	.1.3.6.1.4.1.140.300.1.1.1.10
`tuxTwshTaMultiplex`	.1.3.6.1.4.1.140.300.1.1.1.11
`tuxTwshTaCurClients`	.1.3.6.1.4.1.140.300.1.1.1.12
`tuxTwshTaTimeleft`	.1.3.6.1.4.1.140.300.1.1.1.13
`tuxTwshTaActive`	.1.3.6.1.4.1.140.300.1.1.1.14
`tuxTwshTaTotacttime`	.1.3.6.1.4.1.140.300.1.1.1.15
`tuxTwshTaTotidltime`	.1.3.6.1.4.1.140.300.1.1.1.16
`tuxTwshTaCurwork`	.1.3.6.1.4.1.140.300.1.1.1.17
`tuxTwshTaFlowcnt`	.1.3.6.1.4.1.140.300.1.1.1.18
`tuxTwshTaNumblockQ`	.1.3.6.1.4.1.140.300.1.1.1.19

Object Name	**Object ID**
`tuxTwshTaRcvdByt`	.1.3.6.1.4.1.140.300.1.1.1.20
`tuxTwshTaRcvdNum`	.1.3.6.1.4.1.140.300.1.1.1.21
`tuxTwshTaSentByt`	.1.3.6.1.4.1.140.300.1.1.1.22
`tuxTwshTaSentNum`	.1.3.6.1.4.1.140.300.1.1.1.23

tuxTwshTaClientId

Syntax

`DisplayString` (`SIZE` (*`1..78`*))

Access

read-only

Description

Client identifier for this WSH. The data in this field should not be interpreted directly by the end user except for equality comparison.

tuxTwshTaWshClientId

Syntax

`DisplayString` (`SIZE` (*`1..78`*))

Access

read-only

Description

Client identifier for this WSH. The data in this field should not be interpreted directly by the end user except for equality comparison. Value is same as `tuxTwshTaClientId`.

tuxTwshTaSrvGrp

Syntax

`DisplayString ( SIZE (1..30) )`

Access

read-only

Description

Logical name of the server group for the associated WSL.

tuxTwshTaSrvId

Syntax

`INTEGER (1..30001)`

Access

read-only

Description

Unique (within the server group) server identification number for the associated WSL.

tuxTwshTaGrpNo

Syntax

`INTEGER (1..30000)`

Access

read-only

Description

Group number.

tuxTwshTaState

Syntax

`INTEGER { active(1), suspended(2), dead(3) }`

Access

read-write

Description

State for the WSH client within the application. Any state defined for the `tuxTclientTbl` group can be returned or set. State changes to the `suspended(2)` state are transitive to all clients associated with this WSH as is the resetting of a `suspended(2)` WSH to `active(1)`. Additionally, `suspended(2)` WSH clients are not assigned any additional incoming clients by the WSL.

Note that the state of a WSH client might not be set to `dead(3)` when accessing the `tuxTclientTbl` group. However, the state transition to `dead(3)` is allowed via the `tuxTwshTbl` group and results in all connections handled by the targeted WSH being dropped abortively.

tuxTwshTaLmid

Syntax

`DisplayString` (`SIZE` (*`1..30`*))

Access

read-only

Description

Current logical machine on which the WSH is running.

tuxTwshTaPid

Syntax

`INTEGER`

Access

read-only

Description

Native operating system process identifier for the WSH client.

tuxTwshTaNaddr

Syntax

`DisplayString ( SIZE (1..78) )`

Access

read-only

Description

Network address of workstation handler. Hexadecimal addresses are converted to an ASCII format with a leading `0x`.

tuxTwshTaHwClients

Syntax

`INTEGER (1..32767)`

Access

read-only

Description

High water number of clients accessing application through this WSH.

tuxTwshTaMultiplex

Syntax

`INTEGER (1..32767)`

Access

read-only

Description

Maximum number of clients that can access the application through this WSH.

tuxTwshTaCurClients

Syntax

`INTEGER (1..32767)`

Access

read-only

Description

Current number of clients accessing the application through this WSH.

tuxTwshTaTimeleft

Syntax

`INTEGER`

Access

read-only

Description

A non-0 value for this object indicates that the WSH has been assigned a newly connecting workstation client that has the indicated amount of time, in seconds, to complete the initialization process with the WSH.

tuxTwshTaActive

Syntax

`INTEGER { yes(1), no(2), unknown(3) }`

Access

read-only

Description

A value of `yes(1)` indicates that the WSH is currently performing work on behalf of one of its associated workstation clients. A value of `no(2)` indicates that the WSH is currently waiting for work to perform on behalf of one of its associated workstation clients.

tuxTwshTaTotacttime

Syntax

`INTEGER`

Access

read-only

Description

Time, in seconds, that the WSH has been active since it started processing.

tuxTwshTaTotidltime

Syntax

`INTEGER`

Access

read-only

Description

Time, in seconds, that the WSH has been idle since it started processing.

tuxTwshTaCurwork

Syntax

`INTEGER`

Access

read-only

Description

Amount of work processed by this WSH since the last WSH assignment by the WSL. This value is used by the WSL to load balance new incoming connections among a set of WSH processes.

tuxTwshTaFlowcnt

Syntax

`INTEGER`

Access

read-only

Description

Number of times flow control has been encountered by this WSH. This object should be considered only in relation to recent past values because it might wrap around during the lifetime of the WSH.

tuxTwshTaNumblockQ

Syntax

`INTEGER`

Access

read-only

Description

Number of times this WSH has been unable to enqueue a message to a local UNIX system message queue due to queue blocking conditions. This object should be considered only in relation to recent past values because it might wrap around during the lifetime of the WSH.

tuxTwshTaRcvdByt

Syntax

`INTEGER`

Access

read-only

Description

Number of bytes received from the network by this WSH from all its present and past workstation clients. This object should be considered only in relation to recent past values because it might wrap around during the lifetime of the WSH.

tuxTwshTaRcvdNum

Syntax

`INTEGER`

Access

read-only

Description

Number of Tuxedo system messages received from the network by this WSH from all its present and past workstation clients. This object should be considered only in relation to recent past values because it might wrap around during the lifetime of the WSH.

tuxTwshTaSentByt

Syntax

`INTEGER`

Access

read-only

Description

Number of bytes sent to the network by this WSH to all its present and past workstation clients. This object should be considered only in relation to recent past values because it might wrap around during the lifetime of the WSH.

tuxTwshTaSentNum

Syntax

`INTEGER`

Access

read-only

Description

Number of Tuxedo system messages sent to the network by this WSH to all its present and past workstation clients. This object should be considered only in relation to recent past values because it might wrap around during the lifetime of the WSH.

tuxTwslTbl

The `tuxTwslTbl` table represents configuration and run-time characteristics of WSL server processes configured to manage workstation groups. These object values identify and characterize workstation-specific configuration objects for WSL `tuxTsrvrTbl` objects within the application. To create a new row in this table, use a SET request that specifies the values for at least `tuxTwslTaSrvGrp`, `tuxTwslTaSrvId`, and `tuxTwslTaNaddr`.

Object Name	**Object ID**
`tuxTwslTaSrvGrp`	.1.3.6.1.4.1.140.300.1.2.1.1
`tuxTwslTaSrvId`	.1.3.6.1.4.1.140.300.1.2.1.2
`tuxTwslTaGrpNo`	.1.3.6.1.4.1.140.300.1.2.1.3
`tuxTwslTaState`	.1.3.6.1.4.1.140.300.1.2.1.4
`tuxTwslTaLmid`	.1.3.6.1.4.1.140.300.1.2.1.5
`tuxTwslTaPid`	.1.3.6.1.4.1.140.300.1.2.1.6
`tuxTwslTaDevice`	.1.3.6.1.4.1.140.300.1.2.1.7
`tuxTwslTaNaddr`	.1.3.6.1.4.1.140.300.1.2.1.8
`tuxTwslTaWshName`	.1.3.6.1.4.1.140.300.1.2.1.9

Object Name	**Object ID**
`tuxTwslTaMinHandlers`	.1.3.6.1.4.1.140.300.1.2.1.10
`tuxTwslTaMaxHandlers`	.1.3.6.1.4.1.140.300.1.2.1.11
`tuxTwslTaMultiplex`	.1.3.6.1.4.1.140.300.1.2.1.12
`tuxTwslTaMaxIdleTime`	.1.3.6.1.4.1.140.300.1.2.1.13
`tuxTwslTaMaxInitTime`	.1.3.6.1.4.1.140.300.1.2.1.14
`tuxTwslTaClOpt`	.1.3.6.1.4.1.140.300.1.2.1.15
`tuxTwslTaEnvFile`	.1.3.6.1.4.1.140.300.1.2.1.16
`tuxTwslTaGrace`	.1.3.6.1.4.1.140.300.1.2.1.17
`tuxTwslTaMaxGen`	.1.3.6.1.4.1.140.300.1.2.1.18
`tuxTwslTaRcmd`	.1.3.6.1.4.1.140.300.1.2.1.19
`tuxTwslTaRestart`	.1.3.6.1.4.1.140.300.1.2.1.20
`tuxTwslTaSequence`	.1.3.6.1.4.1.140.300.1.2.1.21
`tuxTwslTaCurHandlers`	.1.3.6.1.4.1.140.300.1.2.1.22
`tuxTwslTaHwHandlers`	.1.3.6.1.4.1.140.300.1.2.1.23
`tuxTwslTaWsProto`	.1.3.6.1.4.1.140.300.1.2.1.24
`tuxTwslTaSuspended`	.1.3.6.1.4.1.140.300.1.2.1.25
`tuxTwslTaViewRefresh`	.1.3.6.1.4.1.140.300.1.2.1.26
`tuxTwslTaKeepAlive`	.1.3.6.1.4.1.140.300.1.2.1.28
`tuxTwslTaNetTimeOut`	.1.3.6.1.4.1.140.300.1.2.1.29

tuxTwslTaSrvGrp

Syntax

`DisplayString` (`SIZE(`*`1..30`*`)`)

Access

read-write

Description

Logical name of the server group. Server group names cannot contain an asterisk (*), comma, or colon.

Note: This object can be updated only during row creation.

tuxTwslTaSrvId

Syntax

```
INTEGER (1..30001)
```

Access

read-write

Description

Unique (within the server group) server identification number.

Note: This object can be updated only during row creation.

tuxTwslTaGrpNo

Syntax

```
INTEGER (1..30001)
```

Access

read-only

Description

Group number associated with this servers group.

tuxTwslTaState

Syntax

`INTEGER { active(1), inactive(2), migrating(3), cleaning(4), restarting(5), suspended(6), partitioned(7), dead(8), invalid(9) }`

Access

read-write

Description

State for the WSL server within the application. Any state defined for the `tuxTsrvrTbl` group can be returned or set as indicated.

tuxTwslTaLmid

Syntax

`DisplayString` (`SIZE` (*`1..30`*))

Access

read-only

Description

Current logical machine on which the server is running.

tuxTwslTaPid

Syntax

`INTEGER`

Access

read-only

Description

Native operating system process identifier for the WSL server.

tuxTwslTaDevice

Syntax

DisplayString (SIZE (*0..78*))

Access

read-write

Description

Device name to be used by the WSL process to access the network. This object value is a required value for access to a network through a TLI-based Tuxedo system binary. This object value is not needed for sockets-based Tuxedo system binaries.

tuxTwslTaNaddr

Syntax

DisplayString (SIZE(*1..78*))

Access

read-write

Description

Specifies the complete network address to be used by the WSL process as its listening address. The listening address for a WSL is the means by which it is contacted by workstation client processes participating in the application.

If string has the form `0xhex-digits` or `\\xhex-digits`, it must contain an even number of valid hexadecimal digits. These forms are translated internally into a character array containing the hexadecimal representations of the string specified.

tuxTwslTaWshName

Syntax

DisplayString (SIZE (*1..78*))

Access

read-write

Description

The name of the executable that provides workstation handler services for this workstation listener. The default value for this object is WSH, which corresponds to the system provided workstation handler. Workstation handlers can be customized using the command `buildwsh`.

tuxTwslTaMinHandlers

Syntax

`INTEGER (0..256)`

Access

read-write

Description

The minimum number of handlers that should be available in conjunction with this WSL at any given time. Upon being activated, the WSL starts this many WSHs immediately and does not deplete the supply of WSHs below this number until the administrator issues a shutdown to the WSL. Modifications to this object for a running WSL might cause additional handlers to be activated.

tuxTwslTaMaxHandlers

Syntax

`INTEGER (0..32767)`

Access

read-write

Description

The maximum number of handlers that should be available in conjunction with this WSL at any given time. Handlers are started as necessary to meet the demand of workstation clients attempting to access the system. This object must be greater than or equal to the setting for the minimum number of handlers.

tuxTwslTaMultiplex

Syntax

`INTEGER (0..32767)`

Access

read-write

Description

Maximum number of clients that are supported by any one handler process concurrently.

tuxTwslTaMaxIdleTime

Syntax

`INTEGER`

Access

read-write

Description

Maximum amount of time, in minutes, that a workstation client is permitted to be idle before it is abortively disconnected from the application by the handler. A value of 0 allows clients to be idle as long as is necessary without being timed out.

tuxTwslTaMaxInitTime

Syntax

`INTEGER`

Access

read-write

Description

The minimum number of seconds that should be allowed for a workstation client to complete initialization processing through the WSH before being timed out by the WSL.

tuxTwslTaClOpt

Syntax

`DisplayString` (`SIZE` (`0..128`))

Access

read-write

Description

Command-line options to be passed to the WSL server when it is activated. For details, see reference page `servopts(5)` in *Oracle Tuxedo File Formats, Data Descriptions, MIBs, and System Processes Reference*.

Note: Run-time modifications to this object do not affect a running WSL server. Server-specific options (that is, those after a double-dash "--") cannot be set and are not returned.

tuxTwslTaEnvFile

Syntax

`DisplayString` (`SIZE` (`0..78`))

Access

read-write

Description

WSL server-specific environment file. See `tuxTmachineEnvFile` for a complete discussion of how this file is used to modify the environment.

Note: Run-time modifications to this object do not affect a running WSL server.

tuxTwslTaGrace

Syntax

`INTEGER`

Access

read-write

Description

The period of time, in seconds, during which the `tuxTwslTaMaxGen` limit applies. This object value is meaningful only for restartable WSL servers, that is, if the `tuxTwslTaRestart` object is set to `yes(1)`. When a restarting server would exceed the `tuxTwslTaMaxGen` limit but the `tuxTwslTaGrace` period has expired, the system resets the current generation (`tuxTsrvrGeneration`) to 1 and resets the initial boot time (`tuxTsrvrTimeStart`) to the current time. A value of 0 for this object indicates that the WSL server should always be restarted.

tuxTwslTaMaxGen

Syntax

`INTEGER (0..256)`

Access

read-write

Description

Number of generations allowed for a restartable WSL server (`tuxTwslTaRestart == yes(1)`) over the specified grace period (`tuxTwslTaGrace`). The initial activation of the WSL server counts as one generation and each restart also counts as one. Processing after the maximum number of generations is exceeded is discussed above with respect to `tuxTwslTaGrace`.

tuxTwslTaRcmd

Syntax

`DisplayString` (`SIZE`(*`0..78`*))

Access

read-write

Description

Application specified command to be executed in parallel with the system restart of an application server. This command must be an executable file in the native operating system.

tuxTwslTaRestart

Syntax

`INTEGER { yes(1), no(2) }`

Access

read-write

Description

Restartable (`yes(1)`) or non-restartable (`no(2)`) WSL server. If server migration is specified for this server group (`tuxTdomainOptions = migrate(2)` and `tuxTgroupLMID` with alternate site), then this object must be set to `yes(1)`.

tuxTwslTaSequence

Syntax

`INTEGER (1..10000)`

Access

read-write

Description

Specifies when this server should be booted (`tmboot`(1)) or shutdown (`tmshutdown`(1)) relative to other servers. If two servers are given the same sequence number, it is possible for `tmboot`(1) to boot them in parallel and for `tmshutdown`(1) to shut them down in parallel. `tuxTwslTbl` instances added without a `tuxTwslTaSequence` object specified or with an invalid value have a value generated for them that is 10,000 or more and is higher than any other automatically selected default value. Servers are booted by `tmboot`(1) in increasing order of sequence number and shutdown by `tmshutdown`(1) in decreasing order. Run-time modifications to this object affect only `tmboot`(1) and `tmshutdown`(1) and affect the order in which running servers can be shutdown by a subsequent invocation of `tmshutdown`(1).

tuxTwslTaCurHandlers

Syntax

`INTEGER`

Access

read-only

Description

Number of currently active handlers associated with this WSL.

tuxTwslTaHwHandlers

Syntax

`INTEGER`

Access

read-only

Description

Maximum number of currently active handlers associated with this WSL at any one time.

tuxTwslTaWsProto

Syntax

`INTEGER`

Access

read-only

Description

The Tuxedo system /WS protocol version number for this /WS group. Note that /WS clients connecting to this group might themselves have a different protocol version number associated with them.

tuxTwslTaSuspended

Syntax

`INTEGER { new(1), all(2), none(3) }`

Access

read-write

Description

A value of `new(1)` indicates that new incoming clients cannot connect through this `tuxTwslTbl` instance. A value of `all(2)` indicates that workstation clients already connected to the application through this WSL have been `suspended(2)` (see `tuxTclientState`) in addition to new incoming connections being disallowed. A value of `none(3)` indicates that no suspension characteristics are in effect.

tuxTwslTaViewRefresh

Syntax

```
INTEGER { yes(1), no-value-returned(2) }
```

Access

read-write

Description

Setting a value of `yes(1)` causes all active WSHs in the /WS group to refresh their VIEW buffer type cache. A `GET` request on this object always returns `no-value-returned(2)` and does not mean anything. This object has meaning only for `SET` requests.

tuxTwslTaKeepAlive

Syntax

```
INTEGER {client(1), handler(2), both(3), none(4), not-available(5)}
```

Access

read-write

Description

The network “keep alive” option is configured for the client, the handler, or both the client and the handler, or not on either side of the connection. Changing this value only affects future connections.

tuxTwslTaNetTimeOut

Syntax

`INTEGER (0..35204650)`

Access

read-write

Description

The minimum number of seconds that should be allowed for a workstation client to wait for a response from WSL/WSH. A value of 0 indicates no network time-out. Changing this value affects only future connections. This object is supported only on Tuxedo 6.4. `-1` is returned if the object is not available.

Application Queue MIB

Oracle Tuxedo systems incorporate the capability to use application queues for time-independent communication. The Tuxedo Application Queue MIB provides the administrative environment required for managing and controlling access to application queues. The Application Queue MIB defines the structure of the application queues.

In Tuxedo applications, messages are stored on a queue, and queues are defined within a particular queue space. Queueing and dequeuing is done within a transaction. The Application Queue MIB consists of five different groups for defining queue access, queues, messages, queues spaces, and queue transactions.

The Application Queue MIB consists of the following groups.

Group Name	Description
`tuxTAppQctrl`	Access control to application queues
`tuxTAppQTbl`	Application queues within a queue space
`tuxTAppQmsgTbl`	Messages within an application queue
`tuxTQspaceTbl`	Application queue spaces
`tuxTQtransTbl`	Transactions associated with application queues

tuxTAppQctrl

The `tuxTAppQctrl` group enables controlled access to all Application Queue related MIB groups.

Object Name	Object ID
`tuxTAppQctrlLmid`	.1.3.6.1.4.1.140.300.12.5.1
`tuxTAppQctrlQmConfig`	.1.3.6.1.4.1.140.300.12.5.2
`tuxTAppQctrlSpaceName`	.1.3.6.1.4.1.140.300.12.5.3
`tuxTAppQctrlQname`	.1.3.6.1.4.1.140.300.12.5.4
`tuxTAppQctrlMsgLoPrio`	.1.3.6.1.4.1.140.300.12.5.5
`tuxTAppQctrlMsgHiPrio`	.1.3.6.1.4.1.140.300.12.5.6
`tuxTAppQctrlMsgEndTime`	.1.3.6.1.4.1.140.300.12.5.7
`tuxTAppQctrlMsgStartTime`	.1.3.6.1.4.1.140.300.12.5.8
`tuxTAppQctrlMsgExpireEndTime`	.1.3.6.1.4.1.140.300.12.5.20
`tuxTAppQctrlMsgExpireStartTime`	.1.3.6.1.4.1.140.300.12.5.30

tuxTAppQctrlLmid

Syntax

`INTEGER { local(1), all(2) }`

Access

read-write

Description

This applies to all Application Queue related MIB groups. This object value controls the machines for which the values are returned.

If the value is `local(1)`, only the local host where Oracle SNMP Agent is running is considered; alternatively, all LMIDs known to the application are considered if the value is `all(2)`.

The default for this object is `local(1)`.

tuxTAppQctrlQmConfig

Syntax

`DisplayString` (`SIZE`(*`1..78`*))

Access

read-write

Description

This applies to all Application Queue related MIB groups. This object value controls the device for which the values are returned.

The default for this object is “*”, in which case all known devices (which are a part of some group) are considered.

tuxTAppQctrlSpaceName

Syntax

`DisplayString` (`SIZE`(*`1..15`*))

Access

read-write

Description

This applies to all Application Queue related MIB groups. This object value controls the queue space for which the values are returned.

The default for this object is “*”, in which case all queue spaces for the devices (qualified by `tuxTAppQctrlQmConfig`) are considered.

tuxTAppQctrlQname

Syntax

`DisplayString` (`SIZE`(*`1..127`*))

Access

read-write

Description

This object value controls the queue for which the values are returned. This applies to `tuxTAppQTbl` and `tuxTAppQmsgTbl`.

The default for this object is “*”, in which case all queues for the devices (qualified by `tuxTAppQctrlQmConfig`) and queue spaces (qualified by `tuxTAppQctrlSpaceName`) are considered.

tuxTAppQctrlMsgLoPrio

Syntax

`INTEGER`

Access

read-write

Description

This object applies only to `tuxTAppQmsgTbl`. The lowest priority within which to search for occurrences of `tuxTAppQmsgTbl` instances. This object value is valid only for PRIO-based queues. By default, the minimum value of priority is considered. To revert to the default setting, set this object to `0`.

tuxTAppQctrlMsgHiPrio

Syntax

`INTEGER`

Access

read-write

Description

This object applies only to `tuxTAppQmsgTbl`. The highest priority within which to search for occurrences of `tuxTAppQmsgTbl` instances. This object value is valid only for PRIO-based queues. By default, the maximum value of priority is considered. To revert to the default setting, set this object to `0`.

tuxTAppQctrlMsgEndTime

Syntax

`DisplayString` (`SIZE`(*`1..15`*))

Access

read-write

Description

This object applies only to `tuxTAppQmsgTbl`. The end time within which to search for occurrences of `tuxTAppQmsgTbl` instances. The range is inclusive. This object value is valid only for TIME-based queues. The default value is the maximum number possible on that machine. To use the default setting, set this object to "*".

`YY[MM[DD[hh[mm[ss]]]]]`

Specifies the year, month, date, hour, minute, and second respectively. Any value which is not specified defaults to its minimum value (e.g., 9506 is taken as 950601000000). The years 00 through 37 are treated as 2000 through 2037, 70 through 99 as 1970 through 1999, and 38 through 69 are invalid.

tuxTAppQctrlMsgStartTime

Syntax

`DisplayString` (`SIZE`(*`1..15`*))

Access

read-write

Description

This object applies only to `tuxTAppQmsgTbl`. The start time within which to search for occurrences of `tuxTAppQmsgTbl` instances. The range is inclusive. This object value is valid only for TIME-based queues. By default, the minimum time value is considered to be `0`. To use the default setting, set this object to "*".

`YY[MM[DD[hh[mm[ss]]]]]`

Specifies the year, month, date, hour, minute, and second respectively. Any value which is not specified defaults to its minimum value (e.g., 9506 is taken as 950601000000). The years 00 through 37 are treated as 2000 through 2037, 70 through 99 as 1970 through 1999, and 38 through 69 are invalid.

tuxTAppQctrlMsgExpireEndTime

Syntax

`DisplayString` (`SIZE`(*`1..12`*))

Access

read-write

Description

This object applies only to `tuxTAppQmsgTbl`. The expire end time within which to search for occurrences of `tuxTAppQmsgTbl` instances. The range is inclusive. This object value is valid only for TIME-based queues. The default value is the maximum number possible on that machine. To use the default setting, set this object to “*”.

`YY[MM[DD[hh[mm[ss]]]]]`

Specifies the year, month, date, hour, minute, and second respectively. Any value which is not specified defaults to its minimum value (e.g., 9506 is taken as 950601000000). The years 00 through 37 are treated as 2000 through 2037, 70 through 99 as 1970 through 1999, and 38 through 69 are invalid.

tuxTAppQctrlMsgExpireStartTime

Syntax

`DisplayString` (`SIZE`(*`1..12`*))

Access

read-write

Description

This object applies only to `tuxTAppQmsgTbl`. The Expire start time within which to search for occurrences of `tuxTAppQmsgTbl` instances. The range is inclusive. This object value is valid only for TIME-based queues. By default, the minimum time value is considered to be `0`. To use the default setting, set this object to “*”.

`YY[MM[DD[hh[mm[ss]]]]]`

Specifies the year, month, date, hour, minute, and second respectively. Any value which is not specified defaults to its minimum value (e.g., 9506 is taken as 950601000000). The years 00 through 37 are treated as 2000 through 2037, 70 through 99 as 1970 through 1999, and 38 through 69 are invalid.

tuxTAppQTbl

The `tuxTAppQTbl` group contains objects that represent application queues. One or more application queues can exist in a single application queue space. Objects in this table are only accessible through a Tuxedo SNMP agent installed on the local machine.

Creation of a New Queue — For creating a new queue(row), in this group the `SET` request should have the value of `tuxTAppQname`, `tuxTAppQspaceName`, and `tuxTAppQmConfig`. Also the value of `tuxTAppQgrpNo` (which is a part of the index) should be the corresponding group number for that queue space or “40000” (if no such group exists).

Note: For this and all other Application Queue related MIB groups, there is a control MIB which can be used to filter the data returned as a part of all Application Queue related MIB groups. Refer to `tuxTAppQctrl`.

To create a new row in this table, issue a SET request that specifies at least the values for `tuxTAppQname`, `tuxTAppQspaceName`, and `tuxTAppQmConfig`.

Object Name	Object ID
`tuxTAppQname`	.1.3.6.1.4.1.140.300.12.1.1.1
`tuxTAppQspaceName`	.1.3.6.1.4.1.140.300.12.1.1.2
`tuxTAppQmConfig`	.1.3.6.1.4.1.140.300.12.1.1.3
`tuxTAppQlmid`	.1.3.6.1.4.1.140.300.12.1.1.4
`tuxTAppQgrpNo`	.1.3.6.1.4.1.140.300.12.1.1.5
`tuxTAppQstate`	.1.3.6.1.4.1.140.300.12.1.1.6
`tuxTAppQorder`	.1.3.6.1.4.1.140.300.12.1.1.7

Object Name	Object ID
`tuxTAppQcmd`	.1.3.6.1.4.1.140.300.12.1.1.8
`tuxTAppQcmdHw`	.1.3.6.1.4.1.140.300.12.1.1.9
`tuxTAppQcmdLw`	.1.3.6.1.4.1.140.300.12.1.1.10
`tuxTAppQmaxRetries`	.1.3.6.1.4.1.140.300.12.1.1.11
`tuxTAppQoutOfOrder`	.1.3.6.1.4.1.140.300.12.1.1.12
`tuxTAppQretryDelay`	.1.3.6.1.4.1.140.300.12.1.1.13
`tuxTAppQcurBlocks`	.1.3.6.1.4.1.140.300.12.1.1.14
`tuxTAppQcurMsg`	.1.3.6.1.4.1.140.300.12.1.1.15
`tuxTAppQDefExpirationTime`	.1.3.6.1.4.1.140.300.12.1.1.30
`tuxTAppQDefDeliveryPolicy`	.1.3.6.1.4.1.140.300.12.1.1.40
`tuxTAppQCmdNonPersist`	.1.3.6.1.4.1.140.300.12.1.1.50
`tuxTAppQCmdNonPersistHw`	.1.3.6.1.4.1.140.300.12.1.1.60
`tuxTAppQCmdNonPersistLw`	.1.3.6.1.4.1.140.300.12.1.1.70

Object Name	**Object ID**
`tuxTAppQCurNonPersistBytes`	.1.3.6.1.4.1.140.300.12.1.1.80
`tuxTAppQCurNonPersistMsg`	.1.3.6.1.4.1.140.300.12.1.1.90

tuxTAppQname

Syntax

`DisplayString` (`SIZE`(*`1..127`*))

Access

read-write

Description

Name of the application queue.

Note: This object can be updated only during row creation.

tuxTAppQspaceName

Syntax

`DisplayString` (`SIZE`(*`1..15`*))

Access

read-write

Description

Name of the application queue space containing the application queue.

Note: This object can be updated only during row creation.

tuxTAppQmConfig

Syntax

`DisplayString` (`SIZE`(*`1..78`*))

Access

read-write

Description

Absolute pathname of the file or device where the application queue space is located.

Note: This object can be updated only during row creation.

tuxTAppQlmid

Syntax

`DisplayString` (`SIZE`(*1..30*))

Access

read-write

Description

Identifier of the logical machine where the application queue space is located.

Note: This object can be updated only during row creation.

tuxTAppQgrpNo

Syntax

`INTEGER (1..29999)`

Access

read-write

Description

Group number of any server group for which this queue is a resource manager, in other words that group's openinfo string `tuxTgroupOpenInfo` contains the device name and queue space name for this queue.

Note: This object can be updated only during row creation.

tuxTAppQstate

Syntax

`INTEGER { valid(1), invalid(2) }`

Access

read-write

Description

The values for `GET` and `SET` operations are as follows:

`GET: valid(1)`
A `GET` operation retrieves information about the selected application queues. The following list describes the meaning of the `tuxTAppQstate` object returned in response to a `GET` request. States not listed are not returned.

`valid(1)`
The specified queue exists.

`SET: invalid(2)`
A `SET` operation changes characteristics of the selected application queue or creates a new queue. The following list describes the meaning of the `tuxTAppQstate` object returned by a `SET` request. States not listed cannot be set.

`invalid(2)`
Delete the specified queue. If the queue space has processes attached to it, the queue is not deleted. In addition, if the queue has messages in it, it is not deleted. Successful return leaves the object in the `invalid(2)` state.

tuxTAppQorder

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-write

Description

The order in which messages in the queue are to be processed. Legal values are `PRIO` or `TIME`, followed by a comma, optionally followed by another occurrence of `PRIO` or `TIME`, followed by one of the values `LIFO` or `FIFO`. If neither `FIFO` nor `LIFO` is specified, `FIFO` is assumed. If nothing is specified when a queue is created, the default is `FIFO`. For example, these are some legal settings:

```
PRIO
PRIO,TIME,LIFO
TIME,PRIO,FIFO
TIME,FIFO
```

tuxTAppQcmd

Syntax

`DisplayString` (`SIZE`(*`0..127`*)) (up to 78 bytes for Oracle Tuxedo 8.0 or earlier)

Access

read-write

Description

The command to be automatically executed when the high water mark, `tuxTAppQcmdHw`, is reached. The command is re-executed when the high water mark is reached again after the low water mark, `tuxTAppQcmdLw`, has been reached.

tuxTAppQcmdHw

Syntax

`DisplayString`

Access

read-write

Description

The high water mark. Refer to `tuxTAppQcmdLw` for further information.

tuxTAppQcmdLw

Syntax

`DisplayString`

Access

read-write

Description

The low water marks that control the automatic execution of the command specified in the `tuxTAppQcmd` object. Each is an integer greater than or equal to zero optionally followed by one of the following keyletters. The keyletters must be consistent for `tuxTAppQcmdHw` and `tuxTAppQcmdLw`.

`b`

The high and low water marks pertain to the number of bytes used by messages in the queue.

`B`

The high and low water marks pertain to the number of blocks used by messages in the queue.

`m`

The high and low water marks pertain to the number of messages in the queue.

`%`

The high and low water marks are expressed in terms of a percentage of queue capacity.

For example, if `tuxTAppQcmdLw` is 50m and `tuxTAppQcmdHw` is 100m, then the command specified in `tuxTAppQcmd` is executed when 100 messages are on the queue, and it is not executed again until the queue is drained below 50 messages and is filled again to 100 messages.

tuxTAppQmaxRetries

Syntax

`INTEGER`

Access

read-write

Description

The maximum number of retries for a failed queue message. When the number of retries is exhausted, the message is placed on the error queue of the associated application queue space. If there is no error queue, the message is dropped. The default is zero.

tuxTAppQoutOfOrder

Syntax

`INTEGER { none(1), top(2), msgid(3) }`

Access

read-write

Description

The way in which out-of-order message processing is to be handled. The default is `none(1)`.

tuxTAppQretryDelay

Syntax

`INTEGER`

Access

read-write

Description

The delay, in seconds, between retries for a failed queue message. The default is zero.

tuxTAppQcurBlocks

Syntax

`INTEGER`

Access

read-only

Description

The number of disk pages currently consumed by the queue.

tuxTAppQcurMsg

Syntax

`INTEGER`

Access

read-only

Description

The number of messages currently in the queue.

tuxTAppQDefExpirationTime

Syntax

`DisplayString`

Access

read-write

Description

This object specifies an expiration time for messages enqueued with no explicit expiration time. The expiration time can be either a relative expiration time or none. The relative expiration time is determined by associating a fixed amount of time with a message after the message arrives at the queue manager process. When a message's expiration time is reached and the message has not been dequeued or administratively deleted, all resources associated with the message are reclaimed by the system and statistics are updated. If a messages expires during a transaction, the expiration does not cause the transaction to fail. Messages that expire while being enqueued or dequeued within a transaction are removed from the queue when the transaction ends. There is no notification that the message has expired. If no default expiration time is specified for a queue, the message without an explicit expiration time does not expire. When the queue's expiration time is modified, the expiration times of messages that were in the queue before the modification are not changed.

The format is `+seconds`, where `seconds` is the number of seconds allowed to lapse between the time that the queue manager successfully completes the operation and the time that the message is to expire. If `seconds` is set to zero (0), the message expires immediately.

The value of this object may also be set to the string “`none`.” The `none` string indicates that messages enqueued to the queue with no explicit expiration time do not expire. You can change the expiration time for messages already in a queue with the `tuxTAppQmsgExpireTime` object of the `tuxTAppQmsgTbl` group.

tuxTAppQDefDeliveryPolicy

Syntax

`INTEGER { persist(1), non-persist(2) }`

Access

read-write

Description

This object specifies the default delivery policy for the queue when no delivery mode is specified for a message enqueued to the queue. When the value is “`persist,`” messages enqueued to the queue without an explicitly specified delivery mode are delivered using the persistent (disk-based) delivery method. When the value is non-persist, messages enqueued to the queue without an explicitly specified delivery method are delivered using the non-persistent (in memory) delivery method. When a queue’s default delivery policy is modified, the delivery quality of service of messages that are in the queue before the modification are not changed. If the queue being modified is the reply queue named for any messages currently in the queue space, the reply quality of service is not changed for those messages as a result of changing the default delivery policy of the queue.

For non-persistent delivery, if the memory area is exhausted or fragmented so that a message cannot be enqueued, the enqueuing operation fails, even if there is sufficient persistent storage for the message. Similarly, if the persistent storage area is exhausted or fragmented so that a message cannot be enqueued, the enqueuing operation fails, even if there is sufficient non-persistent storage for the message. If the `tuxTQspaceMemNonPersist` object of the `tuxTQspaceTbl` group is zero (0) for a queue space, no space is reserved for non -persistent messages. In such a case, any attempt to enqueue a non-persistent message fails. This type of failure results, for example, when no delivery quality of service has been specified for a message and the `tuxTAppQDefDeliveryPolicy` object for the target queue has been set to “non-persist.”

tuxTAppQCmdNonPersist

Syntax

`DisplayString` (`SIZE`(*`1..127`*)) (up to 78 bytes for Oracle Tuxedo 8.0 or earlier)

Access

read-write

Description

This object specifies the command to be executed automatically when the high-water mark for non -persistent (memory-based delivery) messages, `tuxTAppQCmdNonPersistHw`, is reached. The command is re-executed when the high-water mark is reached again after the low-water mark for non-persistent (memory-based delivery) messages, `tuxTAppQCmdNonPersistLw`, has been reached.

tuxTAppQCmdNonPersistHw

Syntax

`DisplayString`

Access

read-write

Description

These objects specify the high- and low-water marks that control the automatic execution of the command specified in the `tuxTAppQCmdNonPersist` object. Each is an integer greater than or equal to zero, followed by one of the following keyletters. The keyletters must be consistent for `tuxTAppQCmdNonPersistHw` and `tuxTAppQCmdNonPersistLw`.

`b`

The high- and low-water marks are expressed as the number of bytes used by non-persistent (in-memory) messages in the queue.

`B`

The high- and low-water marks are expressed as the number of blocks used by non-persistent (in-memory) messages in the queue.

`%`

The high- and low-water marks are expressed as a percentage of the shared memory capacity reserved for non-persistent messages in the queue space used by the queue.

The messages threshold type specified through the `tuxTAppQCmdHw` and `tuxTAppQcmdLw` objects (when followed by an m) applies to all messages in a queue, including both persistent and non-persistent messages, and therefore is not available as a threshold type for `tuxTAppQCmdNonPersistHw` and `tuxTAppQCmdNonPersistLw`.

tuxTAppQCmdNonPersistLw

Syntax

`DisplayString`

Access

read-write

Description

These objects specify the high- and low-water marks that control the automatic execution of the command specified in the `tuxTAppQCmdNonPersist` object. Each is an integer greater than or equal to zero, followed by one of the following keyletters. The keyletters must be consistent for `tuxTAppQCmdNonPersistHw` and `tuxTAppQCmdNonPersistLw`.

`b`

The high- and low-water marks are expressed as the number of bytes used by non-persistent (in-memory) messages in the queue.

`B`

The high- and low-water marks are expressed as the number of blocks used by non-persistent (in-memory) messages in the queue.

`%`

The high- and low-water marks are expressed as a percentage of the shared memory capacity reserved for non-persistent messages in the queue space used by the queue.

The messages threshold type specified through the `tuxTAppQCmdHw` and `tuxTAppQcmdLw` objects (when followed by an m) applies to all messages in a queue, including both persistent and non-persistent messages, and therefore is not available as a threshold type for `tuxTAppQCmdNonPersistHw` and `tuxTAppQCmdNonPersistLw`.

tuxTAppQCurNonPersistBytes

Syntax

`INTEGER`

Access

read-write

Description

This object specifies the number of shared memory bytes currently consumed by the non-persistent messages on the queue.

tuxTAppQCurNonPersistMsg

Syntax

`INTEGER`

Access

read-write

Description

This object specifies the number of non-persistent messages currently in the queue. To determine the total number of messages in the queue, add the value of `tuxTAppQcurMsg` to this value.

tuxTAppQmsgTbl

The `tuxTAppQmsgTbl` group contains objects that represent messages stored in application queues. A message is not created by an administrator; instead, it comes into existence as a result of a call to `tpenqueue`(3). A message can be destroyed either by a call to `tpdequeue`(3) or by an administrator. In addition, certain objects of a message can be modified by an administrator. For example, an administrator can move a message from one queue to another queue within the same queue space or change its priority.

Objects in this table are only accessible through a Tuxedo SNMP agent installed on the local machine.

Object Name	**Object ID**
`tuxTAppQmsgId`	.1.3.6.1.4.1.140.300.12.2.1.1
`tuxTAppQmsgSerNo`	.1.3.6.1.4.1.140.300.12.2.1.2
`tuxTAppQmsgGrpNo`	.1.3.6.1.4.1.140.300.12.2.1.3
`tuxTAppQmsgQname`	.1.3.6.1.4.1.140.300.12.2.1.4
`tuxTAppQmsgQmConfig`	.1.3.6.1.4.1.140.300.12.2.1.5
`tuxTAppQmsgQspaceName`	.1.3.6.1.4.1.140.300.12.2.1.6
`tuxTAppQmsgLmid`	.1.3.6.1.4.1.140.300.12.2.1.7
`tuxTAppQmsgState`	.1.3.6.1.4.1.140.300.12.2.1.8
`tuxTAppQmsgNewQname`	.1.3.6.1.4.1.140.300.12.2.1.9
`tuxTAppQmsgPrior`	.1.3.6.1.4.1.140.300.12.2.1.10
`tuxTAppQmsgTime`	.1.3.6.1.4.1.140.300.12.2.1.11
`tuxTAppQmsgCorId`	.1.3.6.1.4.1.140.300.12.2.1.12
`tuxTAppQmsgCurRetries`	.1.3.6.1.4.1.140.300.12.2.1.13
`tuxTAppQmsgSize`	.1.3.6.1.4.1.140.300.12.2.1.14
`tuxTAppQmsgExpireTime`	.1.3.6.1.4.1.140.300.12.2.1.20
`tuxTAppQmsgPersistent`	.1.3.6.1.4.1.140.300.12.2.1.30
`tuxTAppQmsgReplyPersistent`	.1.3.6.1.4.1.140.300.12.2.1.40

tuxTAppQmsgId

Syntax

`DisplayString` (`SIZE`(*`1..32`*))

Access

read-only

Description

A unique identifier for the queue message, which can be used to select the message for `GET` or `SET` operations. No significance should be placed on this value beyond using it for equality comparisons.

tuxTAppQmsgSerNo

Syntax

`INTEGER`

Access

read-only

Description

A running number corresponding to `tuxTAppQmsgId` for the queue message, which is a part of the composite index of this table.

tuxTAppQmsgGrpNo

Syntax

`INTEGER`

Access

read-only

Description

Group number of any server group for which this queue is a resource manager, in other words that group’s openinfo string `tuxTgroupOpenInfo` contains the device name and queue space name for this queue.

tuxTAppQmsgQname

Syntax

`DisplayString` (`SIZE`(*`1..127`*))

Access

read-only

Description

Name of the application queue in which the message is stored.

tuxTAppQmsgQmConfig

Syntax

`DisplayString` (`SIZE`(*`1..78`*))

Access

read-only

Description

Absolute pathname of the file or device where the application queue space for the queue containing this message is located.

tuxTAppQmsgQspaceName

Syntax

`DisplayString` (`SIZE`(*`1..15`*))

Access

read-only

Description

Name of the application queue space containing the application queue in which this message is located.

tuxTAppQmsgLmid

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-only

Description

Logical machine id for the machine on which the queue containing this message is located.

tuxTAppQmsgState

Syntax

`INTEGER { valid(1), invalid(2) }`

Access

read-write

Description

The values for `GET` and `SET` operations are as follows:

`GET: valid(1)`

A `GET` operation retrieves information about the selected messages. The following list describes the meaning of the `tuxTAppQmsgState` object returned in response to a `GET` request. States not listed are not returned.

`valid(1)`

The message exists.

`SET: invalid(2)`

A `SET` operation changes characteristics of the selected message. The following list describes the meaning of the `tuxTAppQmsgState` object returned by a `SET` request. States not listed cannot be set.

`invalid(2)`

The message is deleted from its queue space. The message must be in state `valid(1)` before attempting this operation. Successful return leaves the object in the `invalid(2)` state.

tuxTAppQmsgNewQname

Syntax

`DisplayString` (`SIZE`(*`1..15`*))

Access

read-write

Description

Name of the queue into which to move the selected message. This queue must be an existing queue in the same queue space. The message must be in state `valid(1)` for this operation to succeed. This object value is not returned by a `GET` operation.

tuxTAppQmsgPrior

Syntax

`INTEGER`

Access

read-write

Description

The priority of the message. This object value is valid only for PRIO-based queues. The value -1 is returned by a `GET` operation if the queue is not PRIO-based.

tuxTAppQmsgTime

Syntax

`DisplayString` (`SIZE`(*`1..15`*))

Access

read-write

Description

The time when the message is processed. This object value is valid only for TIME-based queues. The empty string is returned by a `GET` operation if the queue is not TIME-based. The format is one of the following:

`+seconds`

Specifies that the message is processed *`seconds`* in the future. The value zero specifies that the message should be processed immediately.

YY[MM[DD[hh[mm[ss]]]]]

Specifies the year, month, day, hour, minute, and second when the message should be processed. Omitted units default to their minimum possible values. For example, 9506 is equivalent to 950601000000. The years 00 through 37 are treated as 2000 through 20037, 70 through 99 are treated as 1970 through 1999, and 38 through 69 are invalid.

tuxTAppQmsgCorId

Syntax

DisplayString (`SIZE`(*0..32*))

Access

read-only

Description

The correlation identifier for this message provided by the application in the `tpenqueue`(3) request. The empty string indicates that a correlation identifier is not present.

tuxTAppQmsgCurRetries

Syntax

`INTEGER`

Access

read-only

Description

The number of retries that have been attempted so far on this message.

tuxTAppQmsgSize

Syntax

`INTEGER`

Access

read-only

Description

The size of the message, in bytes.

tuxTAppQmsgExpireTime

Syntax

`DisplayString` (`SIZE`(*`1..15`*))

Access

read-write

Description

This object specifies the time at which a message expires (that is, the time at which the message should be removed from the queue if it has not already been dequeued or administratively deleted). When a message expires, all resources it uses are reclaimed by the system and statistics are updated. If a message expires during a transaction, the expiration does not cause the transaction to fail. Messages that expire while being enqueued or dequeued within a transaction are removed from the queue when the transaction ends. There is no notification that the message has expired. Expiration times cannot be added to messages enqueued by versions of the Oracle Tuxedo system that do not support message expiration, even when the queue manager responsible for changing this value supports message expiration. Attempts to add an expiration time fail.

The empty string is returned by a `GET` operation if the expiration time is not set. The expiration time format is one of the following:

`+seconds`

Specifies that the message will be removed after the specified number of seconds. If the value of seconds is set to zero (0), the message is removed immediately from the queue. Relative expiration time is calculated on the basis of the time at which the MIB request arrives and has been processed by the corresponding queue manager.

`YY[MM[DD[hh]MM[SS]]]]`

Specifies the year, month, day, hour, minute, and second when the message will be removed if it has not already been dequeued or administratively deleted. Omitted units default to their minimum possible values. For example, 9506 is equivalent to 950601000000. The years 00 through 37 are treated as 2000 through 2037, 70 through 99 are treated as 1970 through 1999, and 38 through 69 are invalid. An absolute expiration time is determined by the clock on the machine where the queue manager process resides.

`none`

Specifies that the message will never expire.

tuxTAppQmsgPersistent

Syntax

`INTEGER { yes(1), no(2) }`

Access

read-only

Description

This read-only state is set to “`no`” for non-persistent messages and “`yes`” for persistent messages. It is the delivery quality of service for the message.

tuxTAppQmsgReplyPersistent

Syntax

`INTEGER { yes(1), no(2) }`

Access

read-only

Description

This read-only state is set to “`no`” for non-persistent messages and “`yes`” for persistent messages. It is the delivery quality that replies to the message

tuxTQspaceTbl

The `tuxTQspaceTbl` group contains objects that represent application queue spaces. Objects in this table are only accessible through a Tuxedo SNMP agent installed on the local machine.

Note: The values returned by this MIB are controlled by `tuxTAppQctrl`. For details, see the description of the above group.

To create a new row in this table, a `SET` request should be issued with an index (`tuxTQspaceGrpNo`) of 40000, which is a reserved value for row creation in the table. The `SET` request also needs to specify values for at least `tuxTQspaceQmConfig`, `tuxTQspaceName`, `tuxTQspaceLmid`, `tuxTQspaceIpckey`, `tuxTQspaceMaxMsg`, `tuxTQspaceMaxPages`, `tuxTQspaceMaxProc`, `tuxTQspaceMaxQueues`, and `tuxTQspaceMaxTrans`. The newly created instance (row) is not visible until it is attached to some server group.

Object Name	Object ID
`tuxTQspaceName`	.1.3.6.1.4.1.140.300.12.3.1.1
`tuxTQspaceQmConfig`	.1.3.6.1.4.1.140.300.12.3.1.2
`tuxTQspaceLmid`	.1.3.6.1.4.1.140.300.12.3.1.3
`tuxTQspaceGrpNo`	.1.3.6.1.4.1.140.300.12.3.1.4
`tuxTQspaceState`	.1.3.6.1.4.1.140.300.12.3.1.5
`tuxTQspaceBlocking`	.1.3.6.1.4.1.140.300.12.3.1.6
`tuxTQspaceErrQname`	.1.3.6.1.4.1.140.300.12.3.1.7
`tuxTQspaceForceInit`	.1.3.6.1.4.1.140.300.12.3.1.8
`tuxTQspaceIpckey`	.1.3.6.1.4.1.140.300.12.3.1.9
`tuxTQspaceMaxMsg`	.1.3.6.1.4.1.140.300.12.3.1.10
`tuxTQspaceMaxPages`	.1.3.6.1.4.1.140.300.12.3.1.11
`tuxTQspaceMaxProc`	.1.3.6.1.4.1.140.300.12.3.1.12
`tuxTQspaceMaxQueues`	.1.3.6.1.4.1.140.300.12.3.1.13
`tuxTQspaceMaxTrans`	.1.3.6.1.4.1.140.300.12.3.1.14
`tuxTQspaceCurExtent`	.1.3.6.1.4.1.140.300.12.3.1.15
`tuxTQspaceCurMsg`	.1.3.6.1.4.1.140.300.12.3.1.16
`tuxTQspaceCurProc`	.1.3.6.1.4.1.140.300.12.3.1.17
`tuxTQspaceCurQueues`	.1.3.6.1.4.1.140.300.12.3.1.18
`tuxTQspaceCurTrans`	.1.3.6.1.4.1.140.300.12.3.1.19
`tuxTQspaceHwMsg`	.1.3.6.1.4.1.140.300.12.3.1.20
`tuxTQspaceHwProc`	.1.3.6.1.4.1.140.300.12.3.1.21

Object Name	**Object ID**
`tuxTQspaceHwQueues`	.1.3.6.1.4.1.140.300.12.3.1.22
`tuxTQspaceHwTrans`	.1.3.6.1.4.1.140.300.12.3.1.23
`tuxTQspacePercentInit`	.1.3.6.1.4.1.140.300.12.3.1.24
`tuxTQspaceMaxActions`	.1.3.6.1.4.1.140.300.12.3.1.40
`tuxTQspaceMaxHandles`	.1.3.6.1.4.1.140.300.12.3.1.50
`tuxTQspaceMaxOwners`	.1.3.6.1.4.1.140.300.12.3.1.60
`tuxTQspaceMaxTmpQueues`	.1.3.6.1.4.1.140.300.12.3.1.70
`tuxTQspaceMaxCursors`	.1.3.6.1.4.1.140.300.12.3.1.80
`tuxTQspaceMemNonPersist`	.1.3.6.1.4.1.140.300.12.3.1.90
`tuxTQspaceMemFilters`	.1.3.6.1.4.1.140.300.12.3.1.100
`tuxTQspaceMemOverFlow`	.1.3.6.1.4.1.140.300.12.3.1.110
`tuxTQspaceMemSystemReserved`	.1.3.6.1.4.1.140.300.12.3.1.120
`tuxTQspaceMemTotalAllocated`	.1.3.6.1.4.1.140.300.12.3.1.130
`tuxTQspaceCurActions`	.1.3.6.1.4.1.140.300.12.3.1.140
`tuxTQspaceCurHandles`	.1.3.6.1.4.1.140.300.12.3.1.150
`tuxTQspaceCurOwners`	.1.3.6.1.4.1.140.300.12.3.1.160
`tuxTQspaceCurTmpQueues`	.1.3.6.1.4.1.140.300.12.3.1.170
`tuxTQspaceCurCursors`	.1.3.6.1.4.1.140.300.12.3.1.180
`tuxTQspaceCurMemNonPersist`	.1.3.6.1.4.1.140.300.12.3.1.190
`tuxTQspaceCurMemFilters`	.1.3.6.1.4.1.140.300.12.3.1.200
`tuxTQspaceCurMemOverFlow`	.1.3.6.1.4.1.140.300.12.3.1.210
`tuxTQspaceHwActions`	.1.3.6.1.4.1.140.300.12.3.1.220
`tuxTQspaceHwHandles`	.1.3.6.1.4.1.140.300.12.3.1.230

Object Name	Object ID
`tuxTQspaceHwOwners`	.1.3.6.1.4.1.140.300.12.3.1.240
`tuxTQspaceHwTmpQueues`	.1.3.6.1.4.1.140.300.12.3.1.250
`tuxTQspaceHwCursors`	.1.3.6.1.4.1.140.300.12.3.1.260
`tuxTQspaceHwMemNonPersist`	.1.3.6.1.4.1.140.300.12.3.1.270
`tuxTQspaceHwMemFilters`	.1.3.6.1.4.1.140.300.12.3.1.280
`tuxTQspaceHwMemOverFlow`	.1.3.6.1.4.1.140.300.12.3.1.290

tuxTQspaceName

Syntax

`DisplayString` (`SIZE`(*`1..15`*))

Access

read-write

Description

Name of the application queue space.

Note: This object can be updated only during row creation.

tuxTQspaceQmConfig

Syntax

`DisplayString` (`SIZE`(*`1..78`*))

Access

read-write

Description

Absolute pathname of the file or device where the application queue space is located.

Note: This object can be updated only during row creation.

tuxTQspaceLmid

Syntax

`DisplayString` (`SIZE`(*`1..30`*))

Access

read-write

Description

Identifier of the logical machine where the application queue space is located.

Note: This object can be updated only during row creation.

tuxTQspaceGrpNo

Syntax

`INTEGER (1..29999)`

Access

read-write

Description

Group number of any server group for which this queue space is a resource manager, in other words that group's openinfo string `tuxTgroupOpenInfo` contains the device name and queue space name for this queue space.

Note: This object can be updated only during row creation.

tuxTQspaceState

Syntax

`INTEGER { inactive(1), initializing(2), open(3), active(4), cleaning(5), invalid(6) }`

Access

read-write

Description

The values for `GET` and `SET` operations are as follows:

`GET: inactive(1)|initializing(2)|open(3)|active(4)`

A `GET` operation retrieves information about the selected application queue space. The following list describes the meaning of the `tuxTQspaceState` object returned in response to a `GET` request. States not listed are not returned.

`inactive(1)`

The queue space exists; i.e., disk space for it has been reserved in a device and the space has been initialized (if requested or if necessary).

`initializing(2)`

Disk space for the queue space is currently being initialized.

`open(3)`

Shared memory and other IPC resources for the queue space have been allocated and initialized, but no processes are currently attached to the shared memory.

`active(4)`

Shared memory and other IPC resources for the queue space have been allocated and initialized, and at least one process is currently attached to the shared memory. These processes can be the queue servers (`TMS_QM`, `TMQUEUE`, and perhaps `TMQFORWARD`) associated with the queue space, or they can be administrative processes such as `qmadmin`(1), or they can be processes associated with another application.

`SET: open(3)|cleaning(5)|invalid(6)`

A `SET` operation changes the selected application queue space or creates a new one. The following list describes the meaning of the `tuxTQspaceState` object returned by a `SET` request. States not listed cannot be set.

`open(3)`

Allocate and initialize shared memory and other IPC resources for the queue space, which is allowed only if the queue space is in the `inactive(1)` state.

`cleaning(5)`

Remove the shared memory and other IPC resources for the queue space, which is allowed only when the queue space is in the `active(4)` or `open(3)` state. Successful return leaves the object in the `inactive(1)` state.

`invalid(6)`

Delete the queue space. An error is reported if the state is `active(4)` or if messages exist on any queues in the queue space. Successful return leaves the object in the `invalid(6)` state.

tuxTQspaceBlocking

Syntax

`INTEGER`

Access

read-write

Description

The blocking factor used for disk space management of the queue space. The default when a new queue space is created is 16.

tuxTQspaceErrQname

Syntax

`DisplayString` (`SIZE`(*`0..127`*))

Access

read-write

Description

Name of the error queue associated with the queue space. If there is no error queue, an empty string is returned by a `GET` request.

tuxTQspaceForceInit

Syntax

`INTEGER { yes(1), no(2) }`

Access

read-write

Description

This object value determines whether or not to initialize disk pages on new extents for the queue space. The default is not to initialize. Depending on the device type (e.g., regular file or raw slice), initialization can occur even if not requested.

tuxTQspaceIpckey

Syntax

`INTEGER (32769..262143)`

Access

read-write

Description

The IPC key used to access queue space shared memory.

tuxTQspaceMaxMsg

Syntax

`INTEGER`

Access

read-write

Description

The maximum number of messages that the queue space can contain.

tuxTQspaceMaxPages

Syntax

`INTEGER`

Access

read-write

Description

The maximum number of disk pages for all queues in the queue space. Each time the `tuxTQspaceMaxPages` object is increased, a new extent is allocated (see `tuxTQspaceCurExtent`). It is not possible to decrease the number of pages by setting this object to a lower number; an error is reported in this case.

tuxTQspaceMaxProc

Syntax

`INTEGER`

Access

read-write

Description

The maximum number of processes that can attach to the queue space.

tuxTQspaceMaxQueues

Syntax

`INTEGER`

Access

read-write

Description

The maximum number of queues that the queue space can contain.

tuxTQspaceMaxTrans

Syntax

`INTEGER`

Access

read-write

Description

The maximum number of simultaneously active transactions allowed by the queue space.

tuxTQspaceCurExtent

Syntax

`INTEGER`

Access

read-only

Description

The current number of extents used by the queue space. The largest number allowed is 100. Each time the `tuxTQspaceMaxPages` object is increased, a new extent is allocated.

tuxTQspaceCurMsg

Syntax

`INTEGER`

Access

read-only

Description

The current number of messages in the queue space. This number can be determined only if the queue space is `open(3)` or `active(4)`, or if the queue space is newly created. If none of the conditions apply, the value -1 is returned.

tuxTQspaceCurProc

Syntax

`INTEGER`

Access

read-only

Description

The current number of processes accessing the queue space.

tuxTQspaceCurQueues

Syntax

`INTEGER`

Access

read-only

Description

The current number of queues existing in the queue space. This number can be determined only if the queue space is `open(3)` or `active(4)`, or if the queue space is newly created. If none of these conditions apply, the value -1 is returned.

tuxTQspaceCurTrans

Syntax

`INTEGER`

Access

read-only

Description

The current number of outstanding transactions involving the queue space.

tuxTQspaceHwMsg

Syntax

`INTEGER`

Access

read-only

Description

The highest number of messages in the queue space since the queue space was last opened. The number is reset to 0 when the queue space state is set to `cleaning(5)`.

tuxTQspaceHwProc

Syntax

`INTEGER`

Access

read-only

Description

The highest number of processes simultaneously attached to the queue space since the queue space was last opened. The number is reset to 0 when the queue space state is set to `cleaning(5)`.

tuxTQspaceHwQueues

Syntax

`INTEGER`

Access

read-only

Description

The highest number of queues existing in the queue space since the queue space was last opened. The number is reset to 0 when the queue space state is set to `cleaning(5)`.

tuxTQspaceHwTrans

Syntax

`INTEGER`

Access

read-only

Description

The highest number of outstanding transactions involving the queue space since the queue space was last opened. If the queue space is accessed by more than one application, this number reflects all applications — not just the application represented by the TUXCONFIG environment variable. The number is reset to 0 when the queue space state is set to `cleaning(5)`.

tuxTQspacePercentInit

Syntax

```
INTEGER (0..100)
```

Access

read-only

Description

The percentage (as an integer between 0 and 100 inclusive) of disk space that has been initialized for the queue space.

tuxTQspaceMaxActions

Syntax

```
INTEGER
```

Access

read-write

Description

This object specifies the number of additional actions that the Queuing Services component of the Oracle Engine can handle concurrently. When a blocking operation is encountered and additional actions are available, the blocking operation is set aside until it can be satisfied. After setting aside the blocking operation, another operation request can be handled. When the blocking operation is completed, the action associated with the operation is made available for a subsequent operation. The system reserve actions are equivalent to the number of processes that can attach to a queue space, so that each queue manager process can have at least one blocking action. Beyond the system-reserved number of blocking actions, the administrator can configure the system to enable it to accommodate additional blocking actions beyond the reserve. An operation fails if a blocking operation is requested and cannot be immediately satisfied and there are no actions available.

tuxTQspaceMaxHandles

Syntax

`INTEGER`

Access

read-write

Description

This object specifies the number of handles that users of the Queueing Services component of the Oracle Engine can use concurrently. Objects manipulated by the queuing services API require handles to access the objects. When an object is opened by a call to the Queuing Services API, a new handle is created and returned to the user. When an object handle is closed, the handle is made available for subsequent open object operations. When the Queuing Services API is used by an application, the administrator must configure the system to accommodate the maximum number of handles that are opened concurrently. An operation fails if a user attempts to open a queuing services object and there are no handles available. Adjusting this value has no effect on Tuxedo applications other than unnecessarily consuming shared memory resources.

tuxTQspaceMaxOwners

Syntax

`INTEGER`

Access

read-write

Description

This object specifies the number of additional Oracle Engine authenticated users that can concurrently use Queuing Services resources. There is one owner record per user, regardless of the number of open handles for the user. When there are no open handles for a user, the owner record is made available to subsequent users. The system reserves a number of owners equivalent to the number of actions, so that each action can be initiated by a different owner. Beyond the system-reserved number of owners that can concurrently use queuing services resources, the administrator can configure the system to accommodate additional owners beyond the reserved number. An operation fails if a user attempts to open a handle when there currently are no open handles, and there are no owners available. Adjusting this value has no effect on Oracle Tuxedo applications other than unnecessarily consuming shared memory resources. Adjusting this value has no effect on Tuxedo applications other than unnecessarily consuming shared memory resources.

tuxTQspaceMaxTmpQueues

Syntax

`INTEGER`

Access

read-write

Description

This object specifies the number of temporary queues that can be opened concurrently in the Queuing Services component of the Oracle Engine. Temporary queues are used by dynamic, self-configuring applications and reduce the need for administrators to configure each queue used by an application. Messages enqueued to temporary queues are not persistent. When all handles to a temporary queue are closed, the temporary queue resources are made available for subsequent temporary queue creation. When the temporary queues are used by an application, the administrator must configure the system to accommodate the maximum number of temporary queues that are active concurrently. An open operation fails if a user attempts to open a temporary queue and there are no temporary queue resources available. This object specifies the number of additional Oracle Engine authenticated users that can concurrently use Queuing Services

tuxTQspaceMaxCursors

Syntax

`INTEGER`

Access

read-write

Description

This object specifies the number of cursors that user of the Queuing Services component of the Oracle Engine can use concurrently. CUrsors are used to navigate a queue. When a cursor is destroyed, the cursor resources are made available for subsequent cursor creation operations.

When the cursors are used by an application, the administrator must configure the system to accommodate the maximum number of cursors that are allocated concurrently. An operation fails if a user attempts to create a cursor and there are no cursor resources available. This object specifies the number of additional Oracle Engine authenticated users that can concurrently use Queuing Services.

tuxTQspaceMemNonPersist

Syntax

`DisplayString`

Access

read-write

Description

This object specifies the size of the area reserved in shared memory to hold non-persistent messages for all queues in the queue space. The memory size can be specified in bytes (`b`) or blocks (`B`). (The size of a block in this context is equivalent to the size of a disk block.)

The `[bB]` suffix is optional and, if not specified, the default is blocks. Note that the number of bytes requested can be rounded up to the next internal data size. When read, the value is always the actual amount of memory allocated in bytes (`b`).

All non-persistent messages in the specified queue space are permanently lost when this variable is successfully changed.

If the variable for a queue space is zero (0), no queue space is reserved. for non-persistent messages. In this case, any attempt to enqueue a non-persistent message fails. This type of failure results, for example, when no delivery quality of service has been specified for a message and the `tuxTAppQDefDeliverPolicy` object of the `tuxTAppTbl` group for the target queue has been set to `NONPERSIST`. For non-persistent delivery, if the memory area is exhausted or fragmented so that a message cannot be enqueued, the enqueuing operation fails, even if there is sufficient persistent storage for the message. Similarly, if the persistent storage area is exhausted or fragmented so that a message cannot be enqueued, the enqueuing operation fails, even if there is sufficient non-persistent storage for the message.

tuxTQspaceMemFilters

Syntax

`INTEGER`

Access

read-write

Description

This object specifies the size of the memory area to reserve in shared memory to hold the compiled representation of user-defined filters. The memory size is specified in bytes. Filters are used by the Queuing Services component of the Oracle Engine for message selection in dequeuing and cursor operations. Filters can be specified using various grammars, but are compiled into an engine normal form and stored in shared memory. Filters are referenced by a handle that is returned when they are compiled. When a filter is destroyed, the memory used by the filter is made available for subsequent compiled filters. When the filters are defined by an application, the administrator must configure the system to accommodate the maximum number of filters that will be concurrently compiled. An operation fails if a user attempts to create a new filter and there is not enough memory allocated for the compiled version of the filter. Adjusting this value has no effect on Tuxedo applications other than unnecessarily consuming shared memory resources.

tuxTQspaceMemOverFlow

Syntax

`INTEGER`

Access

read-write

Description

This object specifies the size of the memory area to reserve in shared memory to accommodate peak load situations where some or all of the allocated shared memory resources are exhausted. The memory size is specified in bytes. Additional objects are allocated from this additional memory on a first-come, first-served basis. When an object created in the additional memory is closed or destroyed, the memory is released for subsequent overflow situations. This additional memory space can yield more objects than the configured number, but there is no guarantee that additional memory is available for any particular object at any given point in time. Currently, only actions, handles, cursors, owners, temporary queues, timers, and filters use the overflow.

tuxTQspaceMemSystemReserved

Syntax

`INTEGER`

Access

read-only

Description

This object specifies the total amount of memory (in bytes) reserved from shared memory for queuing services system use.

tuxTQspaceMemTotalAllocated

Syntax

`INTEGER`

Access

read-only

Description

This object specifies the total amount of memory (in bytes) allocated from shared memory for all queuing services objects.

tuxTQspaceCurActions

Syntax

`INTEGER`

Access

read-only

Description

This object specifies the current number of actions in use in the queue space. This number can be determined if the queue space is OPEn or ACTive, or if the queue space is newly created. If none of the conditions apply, the value `-1` is returned.

tuxTQspaceCurHandles

Syntax

`INTEGER`

Access

read-only

Description

This object specifies the current number of cursors in use in the queue space. This number can be determined if the queue space is OPEn or ACTive, or if the queue space is newly created. If none of the conditions apply, the value `-1` is returned.

tuxTQspaceCurOwners

Syntax

`INTEGER`

Access

read-only

Description

This object specifies the current number of owners in use in the queue space. This number can be determined if the queue space is OPEn or ACTive, or if the queue space is newly created. If none of the conditions apply, the value `-1` is returned.

tuxTQspaceCurTmpQueues

Syntax

`INTEGER`

Access

read-only

Description

This object specifies the current number of temporary queues in use in the queue space. This number can be determined if the queue space is OPEn or ACTive, or if the queue space is newly created. If none of the conditions apply, the value `-1` is returned.

tuxTQspaceCurCursors

Syntax

`INTEGER`

Access

read-only

Description

This object specifies the current number of cursors in use in the queue space. This number can be determined if the queue space is OPEn or ACTive, or if the queue space is newly created. If none of the conditions apply, the value `-1` is returned.

tuxTQspaceCurMemNonPersist

Syntax

`INTEGER`

Access

read-only

Description

This object specifies the current amount of memory, in bytes, consumed by non-persistent messages in the queue space. This number can be determined if the queue space is OPEn or ACTive, or if the queue space is newly created. If none of the conditions apply, the value `-1` is returned.

tuxTQspaceCurMemFilters

Syntax

`INTEGER`

Access

read-only

Description

This object specifies the current number of bytes in use for filters in the queue space. This number can be determined if the queue space is OPEn or ACTive, or if the queue space is newly created. If none of the conditions apply, the value `-1` is returned.

tuxTQspaceCurMemOverFlow

Syntax

`INTEGER`

Access

read-only

Description

This object specifies the current number of bytes of overflow memory in use in the queue space. This number can be determined if the queue space is OPEn or ACTive, or if the queue space is newly created. If none of the conditions apply, the value `-1` is returned.

tuxTQspaceHwActions

Syntax

`INTEGER (0..100)`

Access

read-only

Description

This object specifies the highest number of concurrent actions reached in the queue space since the queue space was last opened. The number is reset to 0 when the queue space is set to CLEaning.

tuxTQspaceHwHandles

Syntax

`INTEGER (0..100)`

Access

read-only

Description

This object specifies the highest number of concurrent handles opened in the queue space since the queue space was last opened. The number is reset to 0 when the queue space is set to CLEaning.

tuxTQspaceHwOwners

Syntax

`INTEGER`

Access

read-only

Description

This object specifies the highest number of concurrent owners reached in the queue space since the queue space was last opened. The number is reset to 0 when the queue space is set to CLEaning.

tuxTQspaceHwTmpQueues

Syntax

`INTEGER`

Access

read-only

Description

This object specifies the highest number of concurrent temporary queues opened in the queue space since the queue space was last opened. The number is reset to 0 when the queue space is set to CLEaning.

tuxTQspaceHwCursors

Syntax

`INTEGER`

Access

read-only

Description

This object specifies the highest number of concurrent cursors created in the queue space since the queue space was last opened. The number is reset to 0 when the queue space is set to CLEaning.

tuxTQspaceHwMemNonPersist

Syntax

`INTEGER`

Access

read-only

Description

This object specifies the largest amount of memory in bytes consumed by non-persistent messages since the queue space was last opened. The number is reset to 0 when the queue space is set to CLEaning.

tuxTQspaceHwMemFilters

Syntax

`INTEGER`

Access

read-only

Description

This object specifies the highest number of bytes used for filters in the queue space since the queue space was last opened. The number is reset to 0 when the queue space is set to CLEaning.

tuxTQspaceHwMemOverflow

Syntax

`INTEGER`

Access

read-only

Description

This object specifies the highest number of bytes used in the overflow memory in the queue space since the queue space was last opened. The number is reset to 0 when the queue space is set to CLEaning.

tuxTQtransTbl

The `tuxTQtransTbl` group contains objects that represent run-time characteristics of transactions associated with application queue spaces. Objects in this table are only accessible through a Tuxedo SNMP agent installed on the local machine.

Object Name	**Object ID**
`tuxTQtransXid`	.1.3.6.1.4.1.140.300.12.4.1.1
`tuxTQtransIndx1`	.1.3.6.1.4.1.140.300.12.4.1.2

Object Name	**Object ID**
`tuxTQtransIndx2`	.1.3.6.1.4.1.140.300.12.4.1.3
`tuxTQtransIndx3`	.1.3.6.1.4.1.140.300.12.4.1.4
`tuxTQtransIndx4`	.1.3.6.1.4.1.140.300.12.4.1.5
`tuxTQtransIndx5`	.1.3.6.1.4.1.140.300.12.4.1.6
`tuxTQtransGrpNo`	.1.3.6.1.4.1.140.300.12.4.1.7
`tuxTQtranSpaceName`	.1.3.6.1.4.1.140.300.12.4.1.8
`tuxTQtransQmConfig`	.1.3.6.1.4.1.140.300.12.4.1.9
`tuxTQtransLmid`	.1.3.6.1.4.1.140.300.12.4.1.10
`tuxTQtransState`	.1.3.6.1.4.1.140.300.12.4.1.11

tuxTQtransXid

Syntax

`DisplayString` (`SIZE`(*`1..78`*))

Access

read-only

Description

Transaction identifier as returned by `tx_info`(3) and mapped to a string representation. The data in this field should not be interpreted directly by the user except for equality comparison.

tuxTQtransIndx1

Syntax

`INTEGER`

Access

read-only

Description

An integer index for `tuxTQtransTbl`. This should not be interpreted by the user. It is used only for uniquely identifying a particular row in this table by the combination of Indx1 through Indx5.

tuxTQtransIndx2

Syntax

`INTEGER`

Access

read-only

Description

An integer index for `tuxTQtransTbl`. This should not be interpreted by the user. It is used only for uniquely identifying a particular row in this table by the combination of Indx1 through Indx5.

tuxTQtransIndx3

Syntax

`INTEGER`

Access

read-only

Description

An integer index for `tuxTQtransTbl`. This should not be interpreted by the user. It is used only for uniquely identifying a particular row in this table by the combination of Indx1 through Indx5.

tuxTQtransIndx4

Syntax

`INTEGER`

Access

read-only

Description

An integer index for `tuxTQtransTbl`. This should not be interpreted by the user. It is used only for uniquely identifying a particular row in this table by the combination of Indx1 through Indx5.

tuxTQtransIndx5

Syntax

`INTEGER`

Access

read-only

Description

An integer index for `tuxTQtransTbl`. This should not be interpreted by the user. It is used only for uniquely identifying a particular row in this table by the combination of Indx1 through Indx5.

tuxTQtransGrpNo

Syntax

`INTEGER`

Access

read-only

Description

Group number of any server group for which the queue space concerning this transaction is a resource manager, in other words that group's openinfo string `tuxTgroupOpenInfo` contains the device name and queue space name for the queue space concerning this transaction.

tuxTQtranSpaceName

Syntax

`DisplayString` (`SIZE`(*`1..15`*))

Access

read-only

Description

Name of the application queue space associated with the transaction.

tuxTQtransQmConfig

Syntax

`DisplayString` (SIZE(*1..78*))

Access

read-only

Description

Absolute pathname of the file or device where the application queue space is located.

tuxTQtransLmid

Syntax

`DisplayString` (SIZE(*1..30*))

Access

read-only

Description

Identifier of the logical machine where the application queue space is located.

tuxTQtransState

Syntax

```
INTEGER { active(1), abort-only(2), aborted(3), com-called(4), ready(5),
decided(6), suspended(7), habort(8), hcommit(9) }
```

Access

read-write

Description

The values for `GET` and `SET` operations are as follows:

`GET: {actdive(1)|abort-only(2)|aborted(3)|com-called(4)|ready(5)|decided(6)|suspended(7)}`

A `GET` operation retrieves run-time information about the selected transactions. The following list describes the meaning of the `tuxTQtransState` object returned in response to a `GET` request. States not listed are not returned.

`active(1)`

The transaction is active.

`abort-only(2)`

The transaction has been identified for rollback.

`aborted(3)`

The transaction has been identified for rollback and rollback has been initiated.

`com-called(4)`

The initiator of the transaction has called `tpcommit`(3) and the first phase of two-phase commit has begun.

`ready(5)`

All of the participating groups on the retrieval site have successfully completed the first phase of the two-phase commit and are ready to be committed.

`decided(6)`

The second phase of the two-phase commit has begun.

`suspended(7)`

The initiator of the transaction has suspended processing on the transaction.

`SET: {habort(8)|hcommit(9)}`

A `SET` operation updates the state of the selected transactions. The following list describes the meaning of the `tuxTQtransState` object returned by a `SET` request. States not listed cannot be set.

`habort(8)`

Heuristically abort the transaction. Successful return leaves the object in the `habort(8)` state.

`hcommit(9)`

Heuristically commit the transaction. Successful return leaves the object in the `hommit(9)` state.

EventBroker MIB

There are two types of Oracle Tuxedo events: application events and system events. Application events are usually controlled or trapped by the application code. System events are generated by the Tuxedo run-time system when important changes in that system are detected. Application programs (clients or services) can subscribe to these system events.

The EventBroker MIB defines the characteristics of an event subscription. You can use the EventBroker MIB to obtain the characteristics of current event subscriptions, define new subscriptions, or invalidate subscriptions. To enable both system event and application event notification, you need to define the system event broker and the application event broker in the Core MIB.

Event subscriptions can be temporary or persistent. Persistent subscriptions survive across application activations and can be removed through the EventBroker MIB. The Tuxedo EventBroker MIB contains five groups of event subscriptions through which the EventBroker can be managed.

The EventBroker MIB consists of the following subscription groups.

Group Name	**Description**
`tuxEventClientTbl`	Subscriptions that trigger unsolicited notification
`tuxEventCmdTbl`	Subscriptions that trigger system commands
`tuxEventQueTbl`	Subscriptions for queue-based notification

Group Name	**Description**
`tuxEventSvcTbl`	Subscriptions for server-based notification
`tuxEventUlogTbl`	Subscriptions for writing userlog messages

Each object in these groups represents a single subscription request. Client Notifications (`tuxEventClientTbl` group) indicate which events trigger an unsolicited message to a client. Service Notifications (`tuxEventSvcTbl` group) indicate which events trigger a request to an application service. Application Queue Notifications (`tuxEventQueTbl` group) indicate which events send a message to an application queue. System Command Notifications (`tuxEventCmdTbl` group) indicate which events trigger an operating system command. Log File Notifications (`tuxEventUlogTbl` group) indicate which events generate a record in the central event log (ulog). The EventBroker automatically removes temporary subscriptions when it detects that the corresponding target is no longer active.

Event subscriptions and the ability to change the Tuxedo MIB enables system administrators and application designers to write event-adaptive applications. When a failure is detected through a system event notification, a management framework program can perform the corrective measures. For example, a management framework task can be triggered to activate servers on a backup machine when it receives an event notification about a failure on a primary machine.

tuxEventClientTbl

This group contains objects that represent subscriptions registered with the EventBroker for client-based notification.

When an event is detected, it is compared to each `tuxEventClientTbl` instance. If the event name matches the value in the event expression and the optional filter rule is true, then the event buffer is sent to the specified client's unsolicited message handling routine. To create a new row in this table, it is necessary to issue a `SET` request that at least specifies the values for `tuxEventClientExpr` and `tuxEventClientId`.

Object Name	**Object ID**
`tuxEventClientIndx`	.1.3.6.1.4.1.140.300.2.1.1.1.1
`tuxEventClientExpr`	.1.3.6.1.4.1.140.300.2.1.1.1.2

Object Name	Object ID
`tuxEventClientFilter`	.1.3.6.1.4.1.140.300.2.1.1.1.3
`tuxEventClientState`	.1.3.6.1.4.1.140.300.2.1.1.1.4
`tuxEventClientId`	.1.3.6.1.4.1.140.300.2.1.1.1.5

tuxEventClientIndx

Syntax

`INTEGER`

Access

read-only

Description

A running number as the unique identifier for a row in the table.

tuxEventClientExpr

Syntax

`DisplayString` (`SIZE`(*`1..255`*))

Access

read-only

Description

Event pattern expression. This expression, which is a regular expression, controls which event names match this subscription. For the format of regular expressions, see reference page `tpsubscribe(3c)` in *Oracle Tuxedo ATMI C Function Reference*.

Note: This object can be updated only during row creation.

tuxEventClientFilter

Syntax

`DisplayString` (`SIZE`(*`1..255`*))

Access

read-only

Description

Event filter expression. This expression, if present, is evaluated with respect to the posted buffer's contents. It must evaluate to TRUE or this subscription is not matched. If the value of this is "-", it means that the filter expression is in binary format.

Note: This object can be updated only during row creation.

tuxEventClientState

Syntax

`INTEGER { active(1), invalid(2) }`

Access

read-write

Description

The values for `GET` and `SET` operations are as follows:

`GET: active(1)`

A `GET` operation retrieves configuration information for the matching `tuxEventClientTbl` row(s).

`SET: invalid(2)`

A `SET` operation updates configuration information for the row in `tuxEventClientTbl`. The following state indicates the meaning of a `tuxEventClientState` set in a `SET` request. States not listed cannot be set.

`invalid(2)`

Delete row. Successful return leaves the row in the `invalid(2)` state.

tuxEventClientId

Syntax

`DisplayString` (`SIZE`(*`1..78`*))

Access

read-only

Description

Send an unsolicited notification message to this client when a matching event is detected.

Note: This object can be updated only during row creation.

tuxEventCmdTbl

This group contains objects that represent subscriptions registered with the EventBroker that trigger execution of system commands.

When an event is detected, it is compared to each row in this table. If the event name matches the value in the event expression and the optional filter rule is true, then the event buffer is formatted and passed to the system's command interpreter.

Create a new Row: To create a new instance of `tuxEventCmdTbl` the user must specify at least `tuxEventCmdExpr` and `tuxEventCmd`. All objects except `tuxEventCmdState` can be updated only during creation of a new instance.

Object Name	Object ID
`tuxEventCmdIndx`	.1.3.6.1.4.1.140.300.2.2.1.1.1
`tuxEventCmdExpr`	.1.3.6.1.4.1.140.300.2.2.1.1.2
`tuxEventCmdFilter`	.1.3.6.1.4.1.140.300.2.2.1.1.3
`tuxEventCmdState`	.1.3.6.1.4.1.140.300.2.2.1.1.4
`tuxEventCmd`	.1.3.6.1.4.1.140.300.2.2.1.1.5

tuxEventCmdIndx

Syntax

`INTEGER`

Access

read-only

Description

A running number as the unique identifier for a row in the table.

tuxEventCmdExpr

Syntax

`DisplayString` (`SIZE`(*`1..255`*))

Access

read-write

Description

Event pattern expression. This expression, which is a regular expression, controls which event names match this subscription. For the format of regular expressions, see reference page `tpsubscribe(3c)` in *Oracle Tuxedo ATMI C Function Reference*.

Note: This object can be updated only during row creation.

tuxEventCmdFilter

Syntax

`DisplayString` (`SIZE`(*`1..255`*))

Access

read-write

Description

Event filter expression. This expression, if present, is evaluated with respect to the posted buffer's contents. It must evaluate to TRUE or this subscription is not matched. If the value of the filter is "-", it means that the filter is in a binary format.

Note: This object can be updated only during row creation.

tuxEventCmdState

Syntax

`INTEGER { active(1), invalid(2) }`

Access

read-write

Description

The values for `GET` and `SET` operations are as follows:

`GET: active(1)`
A `GET` operation retrieves configuration information for the `tuxEventCmdTbl` instance(s).

`SET: invalid(2)`
A `SET` operation updates configuration information for the `tuxEventCmdTbl` instance. The following state indicates the meaning of a `tuxEventCmdState` set in a `SET` request. States not listed cannot be set.

`invalid(2)`
Delete `tuxEventCmdTbl` instance. Successful return leaves the object in the `invalid(2)` state.

tuxEventCmd

Syntax

`DisplayString` (`SIZE`(*`1..255`*))

Access

read-write

Description

Execute this system command when an event matching this object is detected. For UNIX system platforms, the command is executed in the background using `system`(3).

Note: This object can be updated only during row creation.

tuxEventQueTbl

This group contains objects that represent subscriptions registered with the EventBroker for queue-based notification.

When an event is detected, it is compared to each `tuxEventQueTbl` instance. If the event name matches the value in the event expression and the optional filter rule is true, then the event buffer is stored in the specified reliable queue. To create a new row in this table, it is necessary to issue a `SET` request that at least specifies `tuxEventQueExpr`, `tuxEventQspace`, and `tuxEventQname`.

Object Name	**Object ID**
`tuxEventQueIndx`	.1.3.6.1.4.1.140.300.2.3.1.1.1
`tuxEventQueExpr`	.1.3.6.1.4.1.140.300.2.3.1.1.2
`tuxEventQueFilter`	.1.3.6.1.4.1.140.300.2.3.1.1.3
`tuxEventQueState`	.1.3.6.1.4.1.140.300.2.3.1.1.4
`tuxEventQspace`	.1.3.6.1.4.1.140.300.2.3.1.1.5
`tuxEventQname`	.1.3.6.1.4.1.140.300.2.3.1.1.6
`tuxEventQctlQtop`	.1.3.6.1.4.1.140.300.2.3.1.1.7
`tuxEventQctlBeforeMsgid`	.1.3.6.1.4.1.140.300.2.3.1.1.8
`tuxEventQctlQtimeAbs`	.1.3.6.1.4.1.140.300.2.3.1.1.9
`tuxEventQctlQtimeRel`	.1.3.6.1.4.1.140.300.2.3.1.1.10
`tuxEventQctlDeqTime`	.1.3.6.1.4.1.140.300.2.3.1.1.11
`tuxEventQctlPrior`	.1.3.6.1.4.1.140.300.2.3.1.1.12
`tuxEventQctlMsgId`	.1.3.6.1.4.1.140.300.2.3.1.1.13

Object Name	Object ID
`tuxEventQctlCorrId`	.1.3.6.1.4.1.140.300.2.3.1.1.14
`tuxEventQctlReplyQ`	.1.3.6.1.4.1.140.300.2.3.1.1.15
`tuxEventQctlFailQ`	.1.3.6.1.4.1.140.300.2.3.1.1.16
`tuxEventPersist`	.1.3.6.1.4.1.140.300.2.3.1.1.17
`tuxEventTran`	.1.3.6.1.4.1.140.300.2.3.1.1.18

tuxEventQueIndx

Syntax

`INTEGER`

Access

read-only

Description

Running number which is the unique identifier for an event in this table.

tuxEventQueExpr

Syntax

`DisplayString` (`SIZE`(*`1..255`*))

Access

read-write

Description

Event pattern expression. This expression, which is a regular expression, controls which event names match this subscription. For the format of regular expressions, see reference page `tpsubscribe(3c)` in *Oracle Tuxedo ATMI C Function Reference*.

Note: This object can be updated only during row creation.

tuxEventQueFilter

Syntax

`DisplayString` (`SIZE`(*`1..255`*))

Access

read-write

Description

Event filter expression. This expression, if present, is evaluated with respect to the posted buffer's contents. It must evaluate to TRUE or this subscription is not matched. If the value of this object is "-", it means the filter is in binary format.

Note: This object can be updated only during row creation.

tuxEventQueState

Syntax

`INTEGER { active(1), invalid(2) }`

Access

read-write

Description

The values for `GET` and `SET` operations are as follows:

`GET: active(1)`

A `GET` operation retrieves configuration information for the matching `tuxEventQueTbl` row(s).

`SET: invalid(2)`

A `SET` operation updates configuration information for the `tuxEventQueTbl` instance. The following state indicates the meaning of a `tuxEventQueState` set in a `SET` request. States not listed cannot be set.

`invalid(2)`

Delete `tuxEventQueTbl` row. Successful return leaves the object in the `invalid(2)` state.

tuxEventQspace

Syntax

`DisplayString` (`SIZE(`*`1..127`*`)`)

Access

read-write

Description

Enqueue a notification message to a reliable queue in this queue space when a matching event is detected.

Note: This object can be updated only during row creation.

tuxEventQname

Syntax

`DisplayString` (`SIZE(`*`1..127`*`)`)

Access

read-write

Description

Enqueue a notification message to this reliable queue when a matching event is detected.

Note: This object can be updated only during row creation.

tuxEventQctlQtop

Syntax

`INTEGER`

Access

read-write

Description

This value, if present, is passed in to `tpenqueue`(3)'s TPQCTL control structure to request notification via the /Q subsystem with the message to be placed at the top of the queue.

Note: This object can be updated only during row creation.

tuxEventQctlBeforeMsgid

Syntax

`INTEGER`

Access

read-write

Description

This value, if present, is passed in to `tpenqueue`(3)'s TPQCTL control structure to request notification via the /Q subsystem with the message to be placed on the queue ahead of the specified message.

Note: This object can be updated only during row creation.

tuxEventQctlQtimeAbs

Syntax

`INTEGER`

Access

read-write

Description

This value, if present, is passed in to `tpenqueue`(3)'s TPQCTL control structure to request notification via the /Q subsystem with the message to be processed at the specified time.

Note: This object can be updated only during row creation.

tuxEventQctlQtimeRel

Syntax

`INTEGER`

Access

read-write

Description

This value, if present, is passed in to `tpenqueue`(3)'s TPQCTL control structure to request notification via the /Q subsystem with the message to be processed relative to the dequeue time.

Note: This object can be updated only during row creation.

tuxEventQctlDeqTime

Syntax

`INTEGER`

Access

read-write

Description

This value, if present, is passed in to `tpenqueue`(3)'s TPQCTL control structure.

Note: This object can be updated only during row creation.

tuxEventQctlPrior

Syntax

`INTEGER`

Access

read-write

Description

This value, if present, is passed in to `tpenqueue`(3)'s TPQCTL control structure.

Note: This object can be updated only during row creation.

tuxEventQctlMsgId

Syntax

`DisplayString` (`SIZE`(*`1..31`*))

Access

read-write

Description

This value, if present, is passed in to `tpenqueue`(3)'s TPQCTL control structure.

Note: This object can be updated only during row creation.

tuxEventQctlCorrId

Syntax

`DisplayString` (`SIZE`(*`1..31`*))

Access

read-write

Description

This value, if present, is passed in to `tpenqueue`(3)'s TPQCTL control structure.

Note: This object can be updated only during row creation.

tuxEventQctlReplyQ

Syntax

`DisplayString` (`SIZE`(*`1..127`*))

Access

read-write

Description

This value, if present, is passed in to `tpenqueue`(3)'s TPQCTL control structure.

Note: This object can be updated only during row creation.

tuxEventQctlFailQ

Syntax

`DisplayString` (`SIZE`(*`1..127`*))

Access

read-write

Description

This value, if present, is passed in to `tpenqueue`(3)'s TPQCTL control structure.

Note: This object can be updated only during row creation.

tuxEventPersist

Syntax

`INTEGER`

Access

read-write

Description

If non-zero, do not cancel this subscription if the designated queue is no longer available.

Note: This object can be updated only during row creation.

tuxEventTran

Syntax

`INTEGER`

Access

read-write

Description

If non-zero and the client's `tppost`(3) call is transactional, include the `tpenqueue`(3) call in the client's transaction.

Note: This object can be updated only during row creation.

tuxEventSvcTbl

This group contains objects that represent subscriptions registered with the EventBroker for service-based notification.

When an event is detected, it is compared to each `tuxEventSvcTbl` instance. If the event name matches the value in the event expression and the optional filter rule is true, then the event buffer is sent to the specified Tuxedo service routine.

To create a new row in this table, a `SET` request must be issued that specifies values for at least `tuxEventSvcExpr` and `tuxEventSvcName`.

Object Name	Object ID
`tuxEventSvcIndx`	.1.3.6.1.4.1.140.300.2.4.1.1.1
`tuxEventSvcExpr`	.1.3.6.1.4.1.140.300.2.4.1.1.2
`tuxEventSvcFilter`	.1.3.6.1.4.1.140.300.2.4.1.1.3
`tuxEventSvcState`	.1.3.6.1.4.1.140.300.2.4.1.1.4
`tuxEventSvcName`	.1.3.6.1.4.1.140.300.2.4.1.1.5
`tuxEventSvcPersist`	.1.3.6.1.4.1.140.300.2.4.1.1.6
`tuxEventSvcTran`	.1.3.6.1.4.1.140.300.2.4.1.1.7

tuxEventSvcIndx

Syntax

`INTEGER`

Access

read-only

Description

A running number which is a unique key for a row in this table.

tuxEventSvcExpr

Syntax

`DisplayString` (`SIZE`(`1..255`))

Access

read-only

Description

Event pattern expression. This expression, which is a regular expression, controls which event names match this subscription. For the format of regular expressions, see reference page `tpsubscribe(3c)` in *Oracle Tuxedo ATMI C Function Reference*.

Note: This object can be updated only during row creation.

tuxEventSvcFilter

Syntax

`DisplayString` (`SIZE`(`1..255`))

Access

read-only

Description

Event filter expression. This expression, if present, is evaluated with respect to the posted buffer's contents. It must evaluate to TRUE or this subscription is not matched. If this is "-", it means the filter is in binary format.

Note: This object can be updated only during row creation.

tuxEventSvcState

Syntax

`INTEGER { active(1), invalid(2) }`

Access

read-write

Description

The values for `GET` and `SET` operations are as follows:

`GET: active(1)`

A `GET` operation retrieves configuration information for the matching `tuxEventSvcTbl` instance(s).

`SET: invalid(2)`

A `SET` operation updates configuration information for the `tuxEventSvcTbl` instance. The following state indicates the meaning of a `tuxEventSvcState` set in a `SET` request. States not listed cannot be set.

`invalid(2)`

Delete `tuxEventSvcTbl` row. Successful return leaves the object in the `invalid(2)` state.

tuxEventSvcName

Syntax

`DisplayString` (`SIZE`(*`1..127`*))

Access

read-only

Description

Call this Tuxedo service when a matching event is detected.

Note: This object can be updated only during row creation.

tuxEventSvcPersist

Syntax

`INTEGER`

Access

read-write

Description

If non-zero, do not cancel this subscription if the `tuxEventSvcName` service is no longer available.

Note: This object can be updated only during row creation.

tuxEventSvcTran

Syntax

`INTEGER`

Access

read-write

Description

If non-zero and the client's `tppost`(3) call is transactional, include the `tuxEventSvcName` service call in the client's transaction.

Note: This object can be updated only during row creation.

tuxEventUlogTbl

This group contains objects that represent subscriptions registered with the EventBroker for writing system `userlog`(3) messages.

When an event is detected, it is compared to each `tuxEventUlogTbl` instance. If the event name matches the value in the event expression and the optional filter rule is true, then the event buffer is formatted and passed to the Tuxedo `userlog`(3) function.

Create a new Row: To create a new instance of `tuxEventUlogTbl` the user must at least specify values for `tuxEventUlogExpr` and `tuxEventUserlog`. All objects except `tuxEventUlogState` can be updated only during creation of a new instance.

Object Name	**Object ID**
`tuxEventUlogIndx`	.1.3.6.1.4.1.140.300.2.5.1.1.1
`tuxEventUlogExpr`	.1.3.6.1.4.1.140.300.2.5.1.1.2
`tuxEventUlogFilter`	.1.3.6.1.4.1.140.300.2.5.1.1.3
`tuxEventUlogState`	.1.3.6.1.4.1.140.300.2.5.1.1.4
`tuxEventUserlog`	.1.3.6.1.4.1.140.300.2.5.1.1.5

tuxEventUlogIndx

Syntax

`INTEGER`

Access

read-only

Description

A running number which is a unique key in this table.

tuxEventUlogExpr

Syntax

`DisplayString` (`SIZE`(*`1..255`*))

Access

read-write

Description

Event pattern expression. This expression, which is a regular expression, controls which event names match this subscription. For the format of regular expressions, see reference page `tpsubscribe(3c)` in *Oracle Tuxedo ATMI C Function Reference*.

Note: This object can be updated only during row creation.

tuxEventUlogFilter

Syntax

`DisplayString` (`SIZE`(*`1..255`*))

Access

read-write

Description

Event filter expression. This expression, if present, is evaluated with respect to the posted buffer's contents. It must evaluate to TRUE or this subscription is not matched. If this is "-", it means the filter is in binary form.

Note: This object can be updated only during row creation.

tuxEventUlogState

Syntax

`INTEGER { active(1), invalid(2) }`

Access

read-write

Description

The values for `GET` and `SET` operations are as follows:

`GET: active(1)`

A `GET` operation retrieves configuration information for the matching `tuxEventUlogTbl` instance(s).

`SET: invalid(2)`

A `SET` operation updates configuration information for the `tuxEventUlogTbl` instance. The following state indicates the meaning of a `tuxEventUlogState` set in a `SET` request. States not listed cannot be set.

`invalid(2)`

Delete `tuxEventUlogTbl` row. Successful return leaves the object in the `invalid(2)` state.

tuxEventUserlog

Syntax

`DisplayString` (`SIZE`(*`1..255`*))

Access

read-write

Description

Write a `userlog`(3) message when a matching event is detected.

Note: This object can be updated only during row creation.

Traps MIB

The event monitor feature of Oracle Tuxedo systems detects and reports certain predefined events—primarily failures of which a system operator should be aware. Oracle SNMP Agent on the master node subscribes to all system events and generates a corresponding SNMP trap notification whenever any of these events occur. The enterprise ID used for these traps is `.1.3.6.1.4.1.140.tuxedo`, where `tuxedo` is `300`. For Oracle SNMP Agent to receive Tuxedo system events, the Tuxedo system EventBroker (`TMSYSEVT`) must be running because that is the entity that generates the system events.

The Event Traps MIB defines all the traps that are generated and the objects that are passed in the variable bindings for these traps. The following sections describe the cause and recommended action for each event:

- Specific Trap Number
- Variable Bindings
- Trap Definitions

Specific Trap Number

Each enterprise-specific trap notification generated by Oracle SNMP Agent has a value in the specific trap ID field of the SNMP trap packet that identifies the Tuxedo event. For each trap listed in this chapter, "Trap ID" is the specific trap number that is sent in the trap packet.

Variable Bindings

SNMP trap notifications generated by Oracle SNMP Agent contain 12 variables (variable/value pairs) in the variable bindings of the trap packet:

`beaEventsDomainId`

The ID of the domain that generated the Tuxedo event notification.

`beaEventsIpcKey`

The IPC key of the Tuxedo domain.

`beaLogicalAgentName`

The logical agent name of the SNMP agent for Oracle SNMP Agent generating the trap. The executable name is the default logical agent name.

The `tuxEventTrapVars` group contains all objects that are sent as a part of the variable bindings of the traps generated in relation to Tuxedo system events, as defined in EVENTS.

tuxEventsName

Syntax

`DisplayString`

Access

not-accessible

Description

A string that uniquely identifies this event. All system-generated events begin with `.Sys`.

tuxEventsSeverity

Syntax

`INTEGER { Error(1), Warn(2), Infor(3) }`

Access

not-accessible

Description

Indicates the severity of the system event.

tuxEventsLmid

Syntax

`DisplayString` (`SIZE`(`1..30`))

Access

not-accessible

Description

A string that identifies the machine where the event was detected.

tuxEventsTime

Syntax

`INTEGER`

Access

not-accessible

Description

A long integer containing the event detection time, in seconds, according to the clock on the machine where detection took place.

tuxEventsUsec

Syntax

`INTEGER`

Access

not-accessible

Description

A long integer containing the event detection time, in microseconds, according to the clock on the machine where detection took place. While the units of this value are always microseconds, the actual resolution depends on the underlying operating system and hardware.

tuxEventsDescription

Syntax

`DisplayString`

Access

not-accessible

Description

A one-line string summarizing the event.

tuxEventsClass

Syntax

`DisplayString`

Access

not-accessible

Description

The class of the object associated with the event. Depending on TA_CLASS, the event notification buffer can contain additional fields specific to an object of this class.

tuxEventsUlogCat

Syntax

`DisplayString`

Access

not-accessible

Description

Catalog name from which the message was derived, if any.

tuxEventsUlogMsgNum

Syntax

`INTEGER`

Access

not-accessible

Description

Catalog message number, if the message was derived from a catalog.

tuxTdomainID

Syntax

`DisplayString` (`SIZE` (*`0..30`*))

Access

not-accessible

Description

Domain identification string. Refer to Chapter 2, "Core MIB."

tuxTdomainKey

Syntax

`INTEGER (32769..262143)`

Access

not-accessible

Description

Numeric key for the well-known address in a Tuxedo system bulletin board. In a single processor environment, this key "names" the bulletin board. In a multiple processor or LAN environment, this key names the message queue of the DBBL. In addition, this key is used as a basis for deriving the names of resources other than the well-known address, such as the names for bulletin boards throughout the application. Refer to Chapter 2, "Core MIB."

beaLogicalAgentName

Syntax

`DisplayString`

Access

not-accessible

Description

The logical name of the agent as provided in the `-l` option (service name in case of Windows NT) when the agent was started. This object value is the agent that is monitoring this domain. If there are multiple SNMP agents running on a managed node, this name needs to be appended to the community with an @ sign to get the MIB values from the appropriate agent. For example, if there are two logical agents, `simp_snmpd` and `bank_snmpd`, the communities used to query values from these agents would be `public@simp_snmpd` and `public@bank_snmpd` respectively. The component after the `@` sign is used to identify the agent to which the MIB query is to be sent.

This object is passed in the variable binding of all SNMP traps generated on behalf of Tuxedo system events.

Note: To run multiple SNMP agents on the same managed node, they must be started as subagents (without `-s` option) and run after starting the Oracle SNMP Agent Integrator.

Trap Definitions

The following sections define all the traps generated by Oracle SNMP Agent when system events occur:

- DOMAIN Traps
- MACHINE Traps
- BRIDGE Traps
- SERVER Event Traps
- CLIENT Traps
- TRANSACTION Traps
- EVENT Traps

DOMAIN Traps

The Domain Traps group defines the Tuxedo domain specific event traps.

resourceConfigTrap

Enterprise

tuxedo

Variables

```
{ tuxEventsName, tuxEventsSeverity, tuxEventsLmid, tuxEventsTime,
tuxEventsUsec, tuxEventsDescription, tuxEventsClass, tuxEventsUlogCat,
tuxEventsUlogMsgNum, beaDomainId, beaDomainKey, beaLogicalAgentName }
```

Description

This trap is generated when `.SysResourceConfig` occurs. It denotes a system configuration change.

Action

This message is informational.

Trap ID

1

MACHINE Traps

The Machine Traps group defines the Tuxedo machine specific event traps.

machineBroadcastTrap

Enterprise

tuxedo

Variables

```
{ tuxEventsName, tuxEventsSeverity, tuxEventsLmid, tuxEventsTime,
tuxEventsUsec, tuxEventsDescription, tuxEventsClass, tuxEventsUlogCat,
tuxEventsUlogMsgNum, beaDomainId, beaDomainKey, beaLogicalAgentName}
```

Description

This trap is generated when `.SysMachineBroadcast` occurs. It denotes broadcast delivery failure. This message indicates that `tpbroadcast()` failed for at least one accesser on the LMID of the application.

Action

Since the broadcast messages are sent in no-blocking mode, it is possible that the process doing the broadcasting encountered a blocking condition and dropped a message. Configure larger message queues or load-balance clients and servers such that excessive load is not put on some machines.

Trap ID

2

machineConfigTrap

Enterprise

tuxedo

Variables

```
{ tuxEventsName, tuxEventsSeverity, tuxEventsLmid, tuxEventsTime,
tuxEventsUsec, tuxEventsDescription, tuxEventsClass, tuxEventsUlogCat,
tuxEventsUlogMsgNum, beaDomainId, beaDomainKey, beaLogicalAgentName }
```

Description

This trap is generated when `.SysMachineConfig` occurs. It denotes a change in a particular machine configuration.

Action

This message is informational.

Trap ID

3

machineFullMaxAccessersTrap

Enterprise

tuxedo

Variables

```
{ tuxEventsName, tuxEventsSeverity, tuxEventsLmid, tuxEventsTime,
tuxEventsUsec, tuxEventsDescription, tuxEventsClass, tuxEventsUlogCat,
tuxEventsUlogMsgNum, beaDomainId, beaDomainKey, beaLogicalAgentName }
```

Description

This trap is generated when `.SysMachineFullMaxaccessers` occurs. This message indicates that the given LMID reached the capacity limit on the number of accessers.

Action

Increase the MAXACCESSERS value for the particular machine. Or, if the hardware/software limits have been reached for the maximum number of users on the machine, move additional users to other machines.

Trap ID

4

machineFullMaxConvTrap

Enterprise

tuxedo

Variables

```
{ tuxEventsName, tuxEventsSeverity, tuxEventsLmid, tuxEventsTime,
tuxEventsUsec, tuxEventsDescription, tuxEventsClass, tuxEventsUlogCat,
tuxEventsUlogMsgNum, beaDomainId, beaDomainKey, beaLogicalAgentName }
```

Description

This trap is generated when `.SysMachineFullMaxconv` occurs. This message indicates that the given LMID reached the capacity limit on the number of concurrent conversations.

Action

Increase the value of MAXCONV for the particular machine to the point that this event is not generated.

Trap ID

5

machineFullMaxGttTrap

Enterprise

tuxedo

Variables

```
{ tuxEventsName, tuxEventsSeverity, tuxEventsLmid, tuxEventsTime,
tuxEventsUsec, tuxEventsDescription, tuxEventsClass, tuxEventsUlogCat,
tuxEventsUlogMsgNum, beaDomainId, beaDomainKey, beaLogicalAgentName }
```

Description

This trap is generated when `.SysMachineFullMaxgtt` is raised. This message indicates that the given machine reached the capacity limit on the number of concurrent transactions.

Action

Increase the value of MAXGTT for the particular machine to the point that this event is not generated.

Trap ID

6

machineFullMaxWsClientsTrap

Enterprise

tuxedo

Variables

```
{ tuxEventsName, tuxEventsSeverity, tuxEventsLmid, tuxEventsTime,
tuxEventsUsec, tuxEventsDescription, tuxEventsClass, tuxEventsUlogCat,
tuxEventsUlogMsgNum, beaDomainId, beaDomainKey, beaLogicalAgentName }
```

Description

This trap is generated when `.SysMachineFullMaxwsclients` is raised. This message indicates that the given machine reached the capacity limit on the number of workstation clients.

Action

Increase the value of MAXWSCLIENTS for the particular machine to the point that this event is not generated.

Trap ID

7

machineMsgQTrap

Enterprise

tuxedo

Variables

```
{ tuxEventsName, tuxEventsSeverity, tuxEventsLmid, tuxEventsTime,
tuxEventsUsec, tuxEventsDescription, tuxEventsClass, tuxEventsUlogCat,
tuxEventsUlogMsgNum, beaDomainId, beaDomainKey, beaLogicalAgentName }
```

Description

This trap is generated when `.SysMachineMsgq` occurs. This message indicates that the server posting a message encountered a blocking condition while putting a message on the message queue.

Action

Configure larger message queues and/or distribute the load equally on all the machines.

Trap ID

8

machinePartitionedTrap

Enterprise

tuxedo

Variables

`{ tuxEventsName, tuxEventsSeverity, tuxEventsLmid, tuxEventsTime, tuxEventsUsec, tuxEventsDescription, tuxEventsClass, tuxEventsUlogCat, tuxEventsUlogMsgNum, beaDomainId, beaDomainKey, beaLogicalAgentName}`

Description

This trap is generated when `.SysMachinePartitioned` occurs. This message indicates that DBBL partitioned the stated machine either because the BBL on the machine is slow or the network link between the master and the machine is broken.

Action

This can occur due to several reasons:

- The entire network might be bogged down due to heavy traffic.
- The BBL or BRIDGE on the non-master is either dead or slow.
- The BRIDGE process on the non-master is extremely busy.

The software is capable of unpartitioning the machine if things stabilize.

Trap ID

9

machineSlowTrap

Enterprise

tuxedo

Variables

`{ tuxEventsName, tuxEventsSeverity, tuxEventsLmid, tuxEventsTime, tuxEventsUsec, tuxEventsDescription, tuxEventsClass, tuxEventsUlogCat, tuxEventsUlogMsgNum, beaDomainId, beaDomainKey, beaLogicalAgentName}`

Description

This trap is generated when `.SysMachineSlow` occurs. This message indicates that BBL on the non-master machine is slow in generating IAMOK messages. These messages are sent periodically from BBLs to the DBBL that helps the DBBL maintain the pulse of the system.

Action

This can occur due to several reasons:

- The entire network might be bogged down due to heavy traffic.
- The BBL on the non-master might be either dead or slow.
- The BRIDGE process on the non-master is extremely busy.

This problem can be intermittent.

Trap ID

10

machineStateTrap

Enterprise

tuxedo

Variables

```
{ tuxEventsName, tuxEventsSeverity, tuxEventsLmid, tuxEventsTime,
tuxEventsUsec, tuxEventsDescription, tuxEventsClass, tuxEventsUlogCat,
tuxEventsUlogMsgNum, beaDomainId, beaDomainKey, beaLogicalAgentName }
```

Description

This trap is generated when `.SysMachineState` occurs. This denotes that a particular machine changed its state.

Action

This message is informational.

Trap ID

11

BRIDGE Traps

The Bridge Traps group defines the Tuxedo bridge specific traps.

networkConfigTrap

Enterprise

tuxedo

Variables

`{tuxEventsName, tuxEventsSeverity, tuxEventsLmid, tuxEventsTime, tuxEventsUsec, tuxEventsDescription, tuxEventsClass, tuxEventsUlogCat, tuxEventsUlogMsgNum, beaDomainId, beaDomainKey, beaLogicalAgentName }`

Description

This trap is generated when `.SysNetworkConfig` occurs. This message indicates the network link between the two machines specified changed to a new state.

Action

This message is informational.

Trap ID

12

networkDroppedTrap

Enterprise

tuxedo

Variables

`{tuxEventsName, tuxEventsSeverity, tuxEventsLmid, tuxEventsTime, tuxEventsUsec, tuxEventsDescription, tuxEventsClass, tuxEventsUlogCat, tuxEventsUlogMsgNum, beaDomainId, beaDomainKey, beaLogicalAgentName }`

Description

This trap is generated when `.SysNetworkDropped` occurs. This message indicates the network link between the two machines specified was dropped abnormally.

Action

This can happen either because the BRIDGE on either machine died or one of the machines crashed.

Trap ID

13

networkFailureTrap

Enterprise

tuxedo

Variables

```
{ tuxEventsName, tuxEventsSeverity, tuxEventsLmid, tuxEventsTime,
tuxEventsUsec, tuxEventsDescription, tuxEventsClass, tuxEventsUlogCat,
tuxEventsUlogMsgNum, beaDomainId, beaDomainKey, beaLogicalAgentName }
```

Description

This trap is generated when `.SysNetworkFailure` occurs. This indicates a network connection failure between BRIDGE processes.

Action

This can happen either because the BRIDGE on remote machine died or the remote machine itself crashed.

Trap ID

14

networkFlowTrap

Enterprise

tuxedo

Variables

```
{ tuxEventsName, tuxEventsSeverity, tuxEventsLmid, tuxEventsTime,
tuxEventsUsec, tuxEventsDescription, tuxEventsClass, tuxEventsUlogCat,
tuxEventsUlogMsgNum, beaDomainId, beaDomainKey, beaLogicalAgentName }
```

Description

This trap is generated when `.SysNetworkFlow` occurs. This message states that the virtual circuit between machines changed to a new state.

Action

This message is informational.

Trap ID

15

networkStateTrap

Enterprise

tuxedo

Variables

```
{ tuxEventsName, tuxEventsSeverity, tuxEventsLmid, tuxEventsTime,
tuxEventsUsec, tuxEventsDescription, tuxEventsClass, tuxEventsUlogCat,
tuxEventsUlogMsgNum, beaDomainId, beaDomainKey, beaLogicalAgentName}
```

Description

This trap is generated when `.SysNetworkState` occurs. This message indicates that the server died abnormally and BBL cleaned up the slot allocated by the server.

Action

Debug the server and fix the problem before the server is restarted.

Trap ID

16

SERVER Event Traps

The Server Traps group defines the Tuxedo server specific traps.

serverCleaningTrap

Enterprise

tuxedo

Variables

```
{ tuxEventsName, tuxEventsSeverity, tuxEventsLmid, tuxEventsTime,
tuxEventsUsec, tuxEventsDescription, tuxEventsClass, tuxEventsUlogCat,
tuxEventsUlogMsgNum, beaDomainId, beaDomainKey, beaLogicalAgentName }
```

Description

This trap is generated when `.SysServerCleaning` occurs. This message indicates that the server died abnormally and BBL cleaned up the slot allocated by the server.

Action

Debug the server and fix the problem before the server is restarted.

Trap ID

17

serverConfigTrap

Enterprise

tuxedo

Variables

```
{ tuxEventsName, tuxEventsSeverity, tuxEventsLmid, tuxEventsTime,
tuxEventsUsec, tuxEventsDescription, tuxEventsClass, tuxEventsUlogCat,
tuxEventsUlogMsgNum, beaDomainId, beaDomainKey, beaLogicalAgentName}
```

Description

This trap is generated when `.SysServerConfig` occurs. This message indicates that the configuration parameters for the server have been updated.

Action

This message is informational.

Trap ID

18

serverDiedTrap

Enterprise

tuxedo

Variables

```
{ tuxEventsName, tuxEventsSeverity, tuxEventsLmid, tuxEventsTime,
tuxEventsUsec, tuxEventsDescription, tuxEventsClass, tuxEventsUlogCat,
tuxEventsUlogMsgNum, beaDomainId, beaDomainKey, beaLogicalAgentName }
```

Description

This trap is generated when `.SysServerDied` occurs. This message indicates that the server died abnormally and the BBL detected this condition in its periodic scan of the BB.

Action

Debug the server and fix the problem before the server is restarted.

Trap ID

19

serverInitTrap

Enterprise

tuxedo

Variables

```
{ tuxEventsName, tuxEventsSeverity, tuxEventsLmid, tuxEventsTime,
tuxEventsUsec, tuxEventsDescription, tuxEventsClass, tuxEventsUlogCat,
tuxEventsUlogMsgNum, beaDomainId, beaDomainKey, beaLogicalAgentName}
```

Description

This trap is generated when `.SysServerInit` occurs. This message indicates that the server specified above failed in `tpsvrinit()` and therefore could not be booted.

Action

Fix the problem and then reboot the server. This problem might be due to a Tuxedo resource limit or an application-specific problem.

Trap ID

20

serverMaxgenTrap

Enterprise

tuxedo

Variables

```
{ tuxEventsName, tuxEventsSeverity, tuxEventsLmid, tuxEventsTime,
tuxEventsUsec, tuxEventsDescription, tuxEventsClass, tuxEventsUlogCat,
tuxEventsUlogMsgNum, beaDomainId, beaDomainKey, beaLogicalAgentName }
```

Description

This trap is generated when `.SysServerMaxgen` occurs. This message indicates that the server died abnormally. Since the server has been marked as restartable, it has been restarted `MAXGEN-1` times in the specified GRACE period.

Action

Tuxedo application servers should not die abnormally. If this happens, it is most likely due to an application-specific problem. Debug the server and resolve the problem before restarting the server.

Trap ID

21

serverRestartingTrap

Enterprise

tuxedo

Variables

```
{ tuxEventsName, tuxEventsSeverity, tuxEventsLmid, tuxEventsTime,
tuxEventsUsec, tuxEventsDescription, tuxEventsClass, tuxEventsUlogCat,
tuxEventsUlogMsgNum, beaDomainId, beaDomainKey, beaLogicalAgentName }
```

Description

This trap is generated when `.SysServerRestarting` occurs.. This message indicates that the server died abnormally. Since this has been marked as a restartable server, it has been restarted.

Action

Tuxedo application servers should not die abnormally. If this happens, it is most likely due to an application-specific problem. Debug the server and resolve the problem before restarting the server.

Trap ID

22

serverStateTrap

Enterprise

tuxedo

Variables

```
{tuxEventsName, tuxEventsSeverity, tuxEventsLmid, tuxEventsTime,
tuxEventsUsec, tuxEventsDescription, tuxEventsClass, tuxEventsUlogCat,
tuxEventsUlogMsgNum, beaDomainId, beaDomainKey, beaLogicalAgentName }
```

Description

This trap is generated when `.SysServerState` occurs. This message indicates that the server changed state.

Action

This message is informational.

Trap ID

23

serverTpExitTrap

Enterprise

tuxedo

Variables

```
{ tuxEventsName, tuxEventsSeverity, tuxEventsLmid, tuxEventsTime,
tuxEventsUsec, tuxEventsDescription, tuxEventsClass, tuxEventsUlogCat,
tuxEventsUlogMsgNum, beaDomainId, beaDomainKey, beaLogicalAgentName }
```

Description

This trap is generated when `.SysServerTpexit` occurs. This message indicates that the server received a request and the service routine code did a `tpreturn(TPEXIT)` while the server was executing application-specific code.

Action

This message is informational.

Trap ID

24

CLIENT Traps

The Client Traps group defines the Tuxedo client-specific traps.

clientConfigTrap

Enterprise

tuxedo

Variables

```
{ tuxEventsName, tuxEventsSeverity, tuxEventsLmid, tuxEventsTime,
tuxEventsUsec, tuxEventsDescription, tuxEventsClass, tuxEventsUlogCat,
tuxEventsUlogMsgNum, beaDomainId, beaDomainKey, beaLogicalAgentName }
```

Description

This trap is generated when `.SysClientConfig` is raised. This denotes that a particular user on a machine changed its configuration.

Action

This message is informational.

Trap ID

25

clientDiedTrap

Enterprise

tuxedo

Variables

```
{ tuxEventsName, tuxEventsSeverity, tuxEventsLmid, tuxEventsTime,
tuxEventsUsec, tuxEventsDescription, tuxEventsClass, tuxEventsUlogCat,
tuxEventsUlogMsgNum, beaDomainId, beaDomainKey, beaLogicalAgentName }
```

Description

This trap is generated when `.SysClientDied` occurs. This message indicates that the client exited the application without doing a `tpterm()`. Normally, clients should do a `tpterm()` before exiting the application.

Action

This message is informational.

Trap ID

26

clientSecurityTrap

Enterprise

tuxedo

Variables

```
{ tuxEventsName, tuxEventsSeverity, tuxEventsLmid, tuxEventsTime,
tuxEventsUsec, tuxEventsDescription, tuxEventsClass,
tuxEventsUlogCat, tuxEventsUlogMsgNum, beaDomainId, beaDomainKey,
beaLogicalAgentName }
```

Description

This trap is generated when `.SysClientSecurity` occurs. This message indicates that the client failed security validation when trying to join the application.

Action

Check to make sure that this is not an unauthorized user trying to gain access to your application data.

Trap ID

27

clientStateTrap

Enterprise

tuxedo

Variables

```
{ tuxEventsName, tuxEventsSeverity, tuxEventsLmid, tuxEventsTime,
tuxEventsUsec, tuxEventsDescription, tuxEventsClass, tuxEventsUlogCat,
tuxEventsUlogMsgNum, beaDomainId, beaDomainKey, beaLogicalAgentName}
```

Description

This trap is generated when `.SysClientState` occurs. This message indicates that a particular client on a machine changed state.

Action

This message is informational.

Trap ID

28

TRANSACTION Traps

The Transaction Traps group defines the Tuxedo transaction-specific traps.

transHeuristicAbortTrap

Enterprise

tuxedo

Variables

```
{ tuxEventsName, tuxEventsSeverity, tuxEventsLmid, tuxEventsTime,
tuxEventsUsec, tuxEventsDescription, tuxEventsClass, tuxEventsUlogCat,
tuxEventsUlogMsgNum, beaDomainId, beaDomainKey, beaLogicalAgentName }
```

Description

This trap is generated when `.SysTransactionHeuristicAbort` occurs. This message indicates that the database in a particular group performed an heuristic abort on a transaction.

Action

Check to make sure that the coordinator of the transaction is still running.

Trap ID

29

transHeuristicCommitTrap

Enterprise

tuxedo

Variables

```
{ tuxEventsName, tuxEventsSeverity, tuxEventsLmid, tuxEventsTime,
tuxEventsUsec, tuxEventsDescription, tuxEventsClass, tuxEventsUlogCat,
tuxEventsUlogMsgNum, beaDomainId, beaDomainKey, beaLogicalAgentName }
```

Description

This trap is generated when `.SysTransactionHeuristicCommit` occurs. This message indicates that the database in a particular group performed an heuristic commit on a transaction.

Action

Check to make sure that the coordinator of the transaction is still running.

Trap ID

30

EVENT Traps

The Event Traps group defines the Tuxedo event specific traps.

eventDeliveryTrap

Enterprise

tuxedo

Variables

```
{ tuxEventsName, tuxEventsSeverity, tuxEventsLmid, tuxEventsTime,
tuxEventsUsec, tuxEventsDescription, tuxEventsClass, tuxEventsUlogCat,
tuxEventsUlogMsgNum, beaDomainId, beaDomainKey, beaLogicalAgentName }
```

Description

This trap is generated when `.SysEventDelivery` occurs. This message indicates that the event server failed to perform at least one notification for a posted event.

Action

Check to make sure that the notifications specified in the subscriptions that match the posted event are doable.

Trap ID

31

eventFailureTrap

Enterprise

tuxedo

Variables

```
{ tuxEventsName, tuxEventsSeverity, tuxEventsLmid, tuxEventsTime,
tuxEventsUsec, tuxEventsDescription, tuxEventsClass, tuxEventsUlogCat,
tuxEventsUlogMsgNum, beaDomainId, beaDomainKey, beaLogicalAgentName }
```

Description

This trap is generated when `.SysEventFailure` occurs. The system event server periodically sends a message to itself to detect blocking conditions on the message queues. This event is generated if the server cannot put a message on the queue in no-block mode. It can also be generated if the received message does not match what was sent out earlier. The second possible case is very unlikely. This denotes a system event monitor subsystem failure on a particular host.

Action

Configure larger message queues or distribute the load in the application equally among all the machines.

Trap ID

32