Oracle® Tuxedo System and Applications Monitor Plus

Reference Guide

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Contents

TSAM Plus Server, Command, and API Reference

TSAM Plus Database Metadata

Enterprise Manager for Tuxedo Target Reference

MBeans and JMX Operations

TXST Command and Variable Reference

TSAM Plus Server, Command, and API Reference

This chapter contains the following sections:

- Local Monitor Server

- tlisten Options for JMX Monitoring

- GWTDOMAIN Option for BTM Monitoring

- tmadmin Command

- Call Path Monitoring APIs

- TSAM Plus Environment Variable

- TSAM Plus Management Tool

- Deployment Utilities

Local Monitor Server

LMS

Name

LMS—The Oracle TSAM Plus Agent Local Monitor Server

Synopsis

```
LMS SRVGRP="identifier" SRVID="number" [other_parms]

CLOPT= "-A -- -l
tsam-manager-dataserver-url[,tsam-manager-backupdataserver-url,…][;tsam-ma
nager-dataserver-url, tsam-manager-dataserver-url,…] [-t
heartbeat-interval] [-n fetch_coll_capacity] [-m metrics-shm-size] [-T
data-thread-number][-e log-warning-interval][-p PayloadFileDIR][-M
conditional-call-path-metrics-shm-size] [-F flush-interval]"
```

Description

LMS is an Oracle TSAM Plus Agent Tuxedo server. It provides the following functions:

- Acts as the local Tuxedo machine data collection proxy

    The performance metrics collected by the Oracle TSAM Plus framework are passed to the plug-in. Oracle TSAM Plus default plug-in sends the data to the LMS.

- Plug-in metrics are stored in the LMS before being sent to the Oracle TSAM Plus manager data server. The LMS communicates with Oracle TSAM Plus Manager via HTTP protocol.

- Other management information exchanges between the LMS and Oracle TSAM Plus manager.

The LMS must be configured in the UBBCONFIG file and set with the proper options. One Tuxedo machine must be configured with one LMS. Multiple LMS on one machine is not supported. LMS is recommended to be configured at the end of UBBCONFIG so that it can retrieve all server information when Tuxedo domain booted. LMS still can synchronize the configuration to TSAM Plus manager periodically.

Options

-l

> Mandatory parameter. It specifies the Oracle TSAM Plus manager data servers addresses. You can set one or multiple addresses. The host address and port number are set based on your Oracle TSAM Plus manager installation. The format is:
>
> ```
> host:port/tsam, host:port/tsam, …[; host:port/tsam, host:port/tsam,
> …]
> ```
>
> - host is the host DNS name or IP address of the box where TSAM Plus manager is installed.
>
> - port is the TCP port number.
>
> - tsam is the Oracle TSAM Plus manager reserved path name.

TSAM Plus server addresses can consist of two parts using semicolon (;): the first active data servers part and the second standby data servers part. Each part contains multiple TSAM Plus server addresses separated by comma (,).

LMS logs on with the TSAM Plus manager specified by the first address. If failed to connect, LMS tries the next server. If no active data server is available, the standby data Server is used. At most 126 servers can be configured.

If a connected server is failed for health checking, LMS reconnects the servers from first to last.

When the connection to a data server is broken, the thread reconnects the data servers from first to last to get another active data server which connection number does not meet the maximum value. If there is no server available, the thread keeps reconnecting the data server one by one with an incremental sleep interval specified by the -r option.

Note: Configuring multiple TSAM Plus manager addresses has been supported since TSAM Plus 12.1.3.

-m

Optional parameter. Specifies the size of shared memory used to store raw data metrics. The optional trailing letter k or m denotes KB or MB bytes, otherwise the unit is in bytes. The effective value is rounded up to 4K size since it is the page size for most platforms.

The default value is 10MB if this option is not present. The size of the shared memory will not grow at run time when there is no free space to store new data. In this case oldest data is replaced with new data.

-r

Specifies the maximum sleep time (in milliseconds) of reconnecting when TSAM agent keeps failing to connect TSAM manager. The default value is 60,000 milliseconds.

-t

Optional parameter. It specifies the time interval in seconds that LMS should connect to the Oracle TSAM Plus manager with configuration synchronization. The default value is 100 seconds.

-n

Optional parameter, introduced since TSAM Plus 12.1.1.1. It specifies the amount of monitoring data sent by TSAM Plus agent to TSAM Plus manager per request. Valid value range is from 1 to 100 and the default value is 16. If configuring a value that is greater than 100, 100 will be used.

-T

LMS creates multiple threads to fetch data from Ring Buffer and sends the data to Manager Server. This option specifies the total number of threads the data servers can be connected. The threads number is distributed to each active data server evenly. The maximum value is 1023.

-e

Optional parameter. It specifies the time interval LMS sends a warning message to ULOG if performance metrics data is dropped due to shared memory size limit. Its range is [1-65535]. The default value is equal the `-t` value. The warning message reports how many messages have been lost during the past interval.

-p

Optional parameter. It specifies the local file path where the user payload data is stored. If not specified, the default user payload local file is generated at `APPDIR` with the main file name `payload`. If the parameter is specified as a relative path, it is relative to `APPDIR`. The payload in local file naming format is <domain>_<machine>_<yyyymmddhh24miss>.payload. If the file size is greater than 2G, a new file will be produced.

-F

Optional parameter. It specifies the time interval (in minutes) that LMS flushes payload data to disk only when the user payload data is stored in hadoop. The default value is 20 minutes.

-M

This parameter can be used when a conditional call path policy is enabled. It specifies the size of shared memory used to store conditional call path metrics. The optional trailing letter k or m denotes KB or MB bytes, otherwise the unit is in bytes. The effective value is rounded up to 4K size since it is the page size for most platforms.

The default value 100MB is used if this option is not specified. The suitable value of "-M" would be set according to the Tuxedo call load and the matching rate of the conditional filer of the policy. The shared memory size does not grow at run time when there is no storage space for new data. In this case the new data overwrites the oldest data stored.

If no conditional call path policy is enabled, you can set the value to 0 to avoid memory allocation.

Example(s)

shows the LMS in UBBCONFIG.

Listing 1-1 LMS in `UBBCONFIG`

```
...
*SERVERS
LMS SRVGRP=LMSGRP SRVID=1
CLOPT="-A -- -l tsamweb.abc.com:8080/tsam -m 20M -t 180 -n 64"

...
```

tlisten Options for JMX Monitoring

The following `tlisten` options serve for JMX monitoring:

`-j jmxaddr`
> Used to start the embedded JMX agent.
> `jmxaddr` specifies the address of RMI connector of embedded JMX agent. If the address has been occupied by another process, an error message is printed into ULOG and JMX agent fails to start up. Table 1 lists the `jmxaddr` adress formats.

Table 1 IPv4 and IPv6 Address Formats

IPv4	IPv6
rmi://IP:port	rmi://[IPv6 address]:port
rmi://hostname:port_number	rmi://hostname:port_number
rmi://#.#.#.#:port_number	Hex format is not supported

Note: For the MP domain, you need to configure the `-j` option for `tlisten` on all machine nodes.

`-m jvm_min_mem`
> Specifies the minimal memory size (in MB), that should be allocated for the JVM used by JMX agent. The default value is 200MB.

`-M jvm_max_mem`
> Specifies the maximum memory size (in MB) that can be allocated for the JVM used by JMX agent. The value of `jvm_max_mem` cannot be set smaller than the value of

`jvm_min_mem`, otherwise the JVM are not created and JMX agent fails to start up. The default value is 500MB.

`-S`

Specifies SSL connection rather than the default connection between EM OMS/Agent and JMX agent.

`-C keyStore`

Specifies the `keyStore` absolute path.

`-P keyStorePassword`

Specifies the environment variable in which the password for the key store is stored. This variable is only usefully when no `tty` is attached.

GWTDOMAIN Option for BTM Monitoring

A new CLOPT option is introduced for `GWTDOMAIN`.

`-m`

The BTM monitor URL. The format is `http://<HOST>:<PORT>/btmmonitor/agent/agent/`.

Example:

```
GWTDOMAIN SRVGRP="gwgrp" SRVID=1003 CLOPT="-A -- -m
http://bej301493.cn.oracle.com:9001/btmmonitor/agent/agent/"
```

When this option is specified, `GWTDOMIAN` starts an embedded JVM and runs a BTM delegate observer to monitor bidirectional calls between WTC and itself.

tmadmin Command

Oracle TSAM Plus Agent provides a `tmadmin` command to turn on/off. If you want to turn off Oracle TSAM Plus temporally, this command can be used. The format is as follows:

```
changemonitor (chmo) [-m machine] on|off
```

The `-m` parameter specifies the logic machine name where the Oracle TSAM Plus collection is disabled. Without this option, monitoring on all machines is disabled. By default, monitoring is turned on. If monitoring is turned off, all data collection is stopped even if there is a monitoring policy defined.

Call Path Monitoring APIs

tpgetcallinfo(3c)

`tpgetcallinfo` is used for call path monitoring. Using `tpgetcallinfo` allows applications to make dynamic decisions based on application performance metrics. When call path monitoring is enabled, `tpgetcallinfo` allows applications to get the corresponding call path information, for example, correlation ID and various timestamps.

For more information, see `tpgetcallinfo(3c)` in the ATMI C Function Reference.

tsambegin(3c)

Name

`tsambegin()` - Used in pair with `tsamend()` for users to manually add a segment to the current call path.

Synopsis

```
#include <tsam_ext.h>

long tsambegin(char* type, char * subtype, int argc, char ** argv, int flags)
```

Description

type

Specifies the monitoring type defined by users. Its value is a NULL-terminated string with a length limit of 255. For example, it could be "CICS" or "Database".

subtype

Specifies the subordinate command type defined by users. Its value is a NULL-terminated string with a length limit of 255. For example, it could be "insert" or "update". Both type and subtype values can be potentially specified as filters when users submit a query.

argc

Specifies the number of string pointed by argv. It must not less than 0.

argv

Specifies a list of properties transferred to TSAM, in which every string should be formatted like (%s=%s). The property name and value are defined by users. The maximum total length of argv is 4000 bytes.

flags
>   Reserved.

Return Values

If succeeded, TSAM Plus returns a positive description in long type denoting a sequence ID. The sequence ID is transferred to `tsamend()`, by which TSAM Plus can correlate the two APIs.

Otherwise, TSAM Plus returns a negative error code.

Errors

Its error codes are defined in the file `tsam_ext.h`.

Table 1-1 tsambegin Error Codes

Error Macro Name	Value	Description
TSAM_EXT_ERROR_NOTENABLE	-1	TSAM Plus is not enabled
TSAM_EXT_ERROR_NOTMONABLE	-2	TSAM Plus is not monitorable
TSAM_EXT_ERROR_INVALIDARG	-3	`argc` or `argv` value is invalid
TSAM_EXT_ERROR_INVALIDTYPE	-4	`type` value is invalid
TSAM_EXT_ERROR_INVALIDSUBTYPE	-5	`subtype` value is invalid

See Also

tsamend(3c)

tsamend(3c)

Name

`tsamend()`- Used in pair with `tsambegin()` for users to manually add a segment to the current call path. It must be used with `tsambegin()` in the same thread.

Synopsis

```
#include <tsam_ext.h>

int tsamend(long cd, int argc, char ** argv, int flags);
```

Description

cd

Specifies the sequence ID returned by `tsambegin()`.

argc

Specifies the number of string pointed by **argv**. It must not less than 0.

argv

Specifies a list of properties transferred to TSAM Plus, in which every string should be formatted like (%s=%s). The property name and value are defined by users. The maximum total length of argv is 4000 bytes.

flags

Reserved.

Return Values

If succeeded, returns 0; otherwise, returns a negative error code.

Errors

Its error codes are defined in the file `tsam_ext.h`.

Table 1-2 tsamend Error Codes

Error Macro Name	Value	Description
TSAM_EXT_ERROR_NOTENABLE	-1	TSAM Plus is not enabled
TSAM_EXT_ERROR_NOTMONABLE	-2	TSAM Plus is not monitorable
TSAM_EXT_ERROR_INVALIDARG	-3	`argc` or `argv` value is invalid
TSAM_EXT_ERROR_INVALIDCD	-6	`cd` value is invalid

See Also

tsambegin(3c)

Call Path and Tuxedo Monitoring Policy in Oracle TSAM Plus User Guide

TSAM Plus Environment Variable

TSAM_LOG_LEVEL

Description

The environment variable `TSAM_LOG_LEVEL` specifies the TSAM Plus Agent log level. Table 1-3 lists the supported levels. If the environment variable is not set, the Agent log level is set to the default value `INFO`.

Table 1-3 Supported Log Levels

Levels	Description
OFF	Does not log messages
ERROR	Only logs ERROR messages
WARN	Logs ERROR and WARN messages
INFO	Logs ERROR, WARN, and INFO messages
DEBUG	Logs DEBUG, ERROR, WARN, and INFO messages
TRACE	Logs all messages

Output and Style

Most of log messages are outputted to ULOG.

The TRACE messages of the metrics generated by Agent plug-in are outputted to the file `raw.agent.log`.

The TRACE messages of the metrics to be reported to Manager are outputted to the file `raw.LMS.log`.

When the log level is "`OFF`" to "`INFO`", the log message in ULOG is like this:

```
155843.bjlinux99.cn.oracle.com!LMS.6519.285202160.0: INFO: thread pool init
success with 1 thread(s)
```

When the log level is `TRACE`, the log messages in ULOG contain indents:

```
154521.bjlinux99.cn.oracle.com!LMS.6441.2304538352.0:
LMS.c:tpsvrinit():2091: TRACE:
hbinterval(100),rawshmsize(10485760),datathreadcnt(1), maxinterval(60000)

154521.bjlinux99.cn.oracle.com!LMS.6441.2304538352.0:
LMS.c:tsam_thrpool_init():416: TRACE: enter

154521.bjlinux99.cn.oracle.com!LMS.6441.2304538352.0:
LMS.c:tsam_thrpool_init():433: INFO: thread pool init success with 1
thread(s)

154521.bjlinux99.cn.oracle.com!LMS.6441.2304538352.0:
LMS.c:tsam_thrpool_init():435: TRACE: leave
```

Examples

To set the log level of LMS to TRACE, set TSAM_LOG_LEVEL to TRACE, and then boot (or reboot) LMS in the same console.

To set the log level of Agent plug-in to TRACE, set TSAM_LOG_LEVEL to TRACE, and then boot (or reboot) Oracle Tuxedo servers in the same console.

TSAM Plus Management Tool

tsamadmin

Synopsis

```
tsamadmin <sub-command> <options>|<target>
```

Description

tsamadmin is a management tool provided by TSAM Plus Agent. It provides the following functions:

- Configures LMS in the Tuxedo UBBCONFIG file and generate a new tuxconfig file automatically.

- Runs a sanity check to check configurations for TSAM Plus Agent and Manager.

Note: Before you can run this command, the following prerequisites must be met:

- The environment variables TUXDIR and TUXCONFIG are set properly.

- The TUXCONFIG file is generated properly and you have the read permission.

Sub Commands

```
autoconfig(ac){-s|--static} {-H|--hostname} hostname:port
```
> This command is used to configure LMS in the Tuxedo UBBCONFIG file and generate a new tuxconfig file automatically. Only one LMS configuration is allowed on one machine. If the LMS configuration already exists, the command sends a notification and exits.
>
> ```
> -s | --static
> ```
>> Uses the static method to generate the tuxconfig.
>
> ```
> -H | --hostname
> ```
>> Specifies the hostname and port of TSAM Plus Manager.

For example, suppose you run the command:

```
tsamadmin autoconfig -s -H tsamhost.com:7001
```

A new UBBCONFIG file is created and the LMS is configured in the new-created group (Group1), as shown below:

```
GROUP1  LMID=SITE1  GRPNO=1

LMS SRVGRP=GROUP1  SRVID=90  CLOPT="-A -- -l tsamhost.com:7001/tsam "
```

Note: The new-created UBBCONFIG file is named "UBB". Before you run tsamadmin autoconfig, make sure your existing UBBCONFIG file does not use the same name if you do not want the old file to be overwritten.

After the command is executed successfully, a new tuxconfig is generated with the original file name and then the old file is renamed as **<original name. + timestamp>**.

```
managercheck(mc)[options]
```
> Checks if TSAM Plus Agent is able to communicate with the Manager. It checks the following configurations in sequence:

a. TSAM agent plug-in is correctly registered in Tuxedo. If the plug-in is not registered yet, tsamadmin helps users to register the plug-in.

b. LMS server is configured in UBBCONFIG.

c. Invalid format of LMS CLOPT is configured.

d. The TSAM Manager host and port configured in LMS CLOPT can be reached.
   If any step fails, the check is terminated and an error report is shown.

Note: This check can be processed on SHM and MP mode. For the MP mode, only if all the configured domains meet b), c) and d), the check can pass. That is, if any machine is not

configured with an LMS, `managercheck` will fail. In MP mode, if `managercheck` is invoked on the slave node, only a) is checked.

Following are `managercheck` options:

`-h | --help`
   Display `tsamadmin managercheck` usage.

`-s | --slave`
   Run the check on slave node. It only checks TSAM Plus Agent plug-in registration and `tuxconfig` is not required.

Deployment Utilities

Database Deployment Utilities

Oracle TSAM Plus provides the following database deployment utilities:

- Unix/Linux Database Deployment: `DatabaseDeployer.sh`

- Windows Database Deployment: `DatabaseDeployer.cmd`

Database deployment utilities are used to create a TSAM Plus database, update the database information in the `tsam_wls12c.ear` file (located at `<TSAM_DIR>/deploy`), or reset the administrator password. The syntax is as follows:

```
DatabaseDeployer.sh/cmd -type derby|oracle [-enable_partition yes|no]
-hostname XXX -port XXX [-dbname XXX] [-url XXX] [-user XXX [-password XXX]
[-dbSysdbaUser XXX -dbSysdbaPwd XXX -tsamDbTablespace XXX]] [-overwrite
yes|no] [-admingid XXX] [-viewergid] [-adminpassword XXX]] [-maxActive XXX]
| [-wlsdsJNDIname XXX] [-resetpassword yes|no]
```

Table 1-4 lists the database deployment utility parameters.

Table 1-4 database Deployment Utility Parameters

Parameters	Description
`type`	Mandatory. The database type. The value is derby or oracle.
`enable_partiti on`	Whether to enable partition. It is mandatory when creating a new database. The value is yes or no.
`hostname`	Database server host name. It is mandatory when `-url` is not specified.

Table 1-4 database Deployment Utility Parameters

Parameters	Description
port	Database port. It is mandatory when -url is not specified.
dbname	Optional. Database name. Default is TSAM.
url	Optional. The database URL directly. The parameter hostname, port, dbname will be ignored if it is specified.
user	Optional. database user name
password	Optional. database user password
dbSysdbaUser	The DBA user name to create the TSAM Plus user when DB type is Oracle. It is mandatory when creating a new Oracle schema.
dbSysdbaPwd	DBA password to create TSAM user when DB type is Oracle. It is mandatory when creating a new Oracle schema.
tsamDbTablespace	Table space to create the TSAM Plus user when DB type is Oracle. It is mandatory when creating a new Oracle schema.
overwrite	Optional. whether overwrite if database has existed. The value is yes or no. Default is no.
admingid	Optional. The GID of the default administrator group. Default is 0.
viewergid	Optional. The GID of the default viewer group. It should be an integer and not equal to admingid. Default is 1.
adminpassword	Optional. The password of the default admin user. Default is admin1.
resetpassword	Optional. Whether reset the password of the default admin user. The value is yes or no. Default is no.
wlsdsJNDIname	Optional. Non-JTA data source JNDI name (for Weblogic only). All the above arguments are ignored if it is specified.
maxActive	Optional. The Max DB connection number. Default is 30.

Application Server Deployment Utilities

Oracle TSAM Plus provides the following application server deployment utilities:

- Unix/Linux Application Server Deployment: `AppServerDeployer.sh`

- Windows Application Server Deployment: `AppServerDeployer.cmd`

Application Server Deployment Utilities are used to deploy the `tsam_wls12c.ear` file (located at `<TSAM_DIR>/deploy`) to a WebLogic domain. The syntax is as follows:

```
AppServerDeployer.sh/cmd -directory XXX  [-adminurl XXX ] -user XXX
-password XXX
```

Table 1-5 lists the application server deployment utility parameters.

Table 1-5 Application Server Deployment Utility Parameters

Parameters	Description
directory	Mandatory. WebLogic server directory
adminurl	Optional. WebLogic domain URL. Default is `localhost:7001`.
user	Mandatory. WebLogic user name
password	Mandatory. WebLogic user password

TSAM Plus Database Metadata

This chapter contains the following sections:

- Tuxedo Configuration Information

- Tuxedo Monitoring Information

- TSAM Plus Management Information

Tuxedo Configuration Information

This section contains the following:

- TUXDOMAIN

- MACHINE

- GROUPS

- SERVER

- SERVICE

- LDOM

- RDOM

- ARTREGION

- ARTTUXGROUP

- ARTRESGROUP

- ARTTRAN

- **IMS_TRANS**
- **IMS_APPS**

TUXDOMAIN

Tuxedo domain information.

COLUMN	TYPE	Nullable	Constraints	Since Version	Note
ID	NUMBER	NO	PK	11.1.1.1.0	
NAME	VARCHAR2(255)	NO	Unique	11.1.1.1.0	The domain name to identify the domain. Its value is composed of: [Domain id]:[PMID of master machine]:[IPC key]
MASTER	VARCHAR2(255)	NO		11.1.1.1.0	LMID of master machine
STATUS	VARCHAR2(31)	NO		11.1.1.1.0	The status of the Tuxedo domain: • ACT: Active • INA: Inactive • INV: Invalid, the node may not exist anymore.
TUXMODE	VARCHAR2(31)	YES		11.1.1.1.0	MODE parameter in UBB
TAG	NUMBER	NO		11.1.1.1.0	Internal used.
ATTRIBUTES	VARCHAR2(1023)	YES		11.1.1.1.0	Reserved.

MACHINE

Tuxedo machine information.

COLUMN	TYPE	Nullable	Constraints	Since Version	Note
ID	NUMBER	NO	PK	11.1.1.1.0	
TUXDOMAI NID	NUMBER	NO	FK to TUXDOMAI N (ID)	11.1.1.1.0	
NAME	VARCHAR2(255)	NO	Indexed	11.1.1.1.0	PMID of the Tuxedo Machine
LMID	VARCHAR2(255)	NO		11.1.1.1.0	LMID of the Tuxedo Machine
STATUS	VARCHAR2(31)	NO		11.1.1.1.0	The status of the Tuxedo machine: • ACT: Active • INA: Inactive • INV: Invalid, the node may not exist anymore.
TUXVERSIO N	VARCHAR2(255)	YES		11.1.1.1.0	Tuxedo version
TSAMVERSI ON	VARCHAR2(255)	YES		11.1.1.1.0	TSAM Plus Agent version
HOSTNAME	VARCHAR2(255)	NO		11.1.1.1.0	Host name of the machine.
SERVERNA ME	VARCHAR(1 023)	YES		12.1.1.0	The host name of TSAM Plus manages to which the Tuxedo machine is connecting.

COLUMN	TYPE	Nullable	Constraints	Since Version	Note
SERVERPORT	NUMBER	YES		12.1.1.0	The port of TSAM Plus manager to which the Tuxedo machine is connecting.
ATTRIBUTES	VARCHAR2(1023)	YES		11.1.1.1.0	Reserved

GROUPS

Tuxedo group information.

COLUMN	TYPE	Nullable	Constraints	Since Version	Note
ID	NUMBER	NO	PK	11.1.1.1.0	
MACHINEID	NUMBER	NO	FK to MACHINE (ID)	11.1.1.1.0	
NAME	VARCHAR2(255)	NO	Indexed	11.1.1.1.0	Group name
TUXGRPID	NUMBER	NO		11.1.1.1.0	GRPNO parameter in the UBB.
STATUS	VARCHAR2(31)	NO		11.1.1.1.0	The status of the Tuxedo machine: • ACT: Active • INA: Inactive • INV: Invalid, the node may not exist anymore.
ATTRIBUTES	VARCHAR2(1023)	YES		11.1.1.1.0	Reserved

SERVER

Tuxedo server information.

COLUMN	TYPE	Nullable	Constraints	Since Version	Note
ID	NUMBER	NO	PK	11.1.1.1.0	
GROUPID	NUMBER	NO	FK to GROUPS (ID)	11.1.1.1.0	GRPNO parameter in the UBB
NAME	VARCHAR2(255)	NO	Indexed	11.1.1.1.0	AOUT parameter in UBB
TUXSVRID	NUMBER	NO		11.1.1.1.0	SRVID parameter in UBB
STATUS	VARCHAR2(31)	NO		11.1.1.1.0	The status of the Tuxedo machine: • ACT: Active • INA: Inactive • INV: Invalid, the node may not exist anymore.
CLOPT	VARCHAR2(1023)	YES		11.1.1.2.0	CLOPT parameter in UBB
ATTRIBUTES	VARCHAR2(1023)	YES		11.1.1.1.0	Reserved.

SERVICE

Tuxedo service information.

COLUMN	TYPE	Nullable	Constraints	Since Version	Note
ID	NUMBER	NO	PK	11.1.1.1.0	
SERVERID	NUMBER	NO	FK to SERVER (ID)	11.1.1.1.0	
NAME	VARCHAR2(255)	NO	Indexed	11.1.1.1.0	Service name

FUNCNAME	VARCHAR2(255)	YES		11.1.1.1.0	Function name
STATUS	VARCHAR2(31)	NO		11.1.1.1.0	The status of the Tuxedo machine: • ACT: Active • INA: Inactive • INV: Invalid, the node may not exist anymore.
ATTRIBUTES	VARCHAR2(1023)	YES		11.1.1.1.0	Reserved.

LDOM

Tuxedo local domain gateway information.

COLUMN	TYPE	Nullable	Constraints	Since Version	Note
ID	NUMBER	NO	PK	11.1.1.1.0	
NAME	VARCHAR2(255)	NO	Indexed	11.1.1.1.0	The name of this local domain access point.
LDOMID	VARCHAR2(255)	NO		11.1.1.1.0	The identifier of the domain gateway group associated with this local domain access point.
GROUPNAME	VARCHAR2(255)	NO		11.1.1.1.0	The group name of the domain gateway group representing this local domain access point.
STATUS	VARCHAR2(31)	NO		11.1.1.1.0	The status of this local domain access point: VALid

COLUMN	TYPE	Nullable	Constraints	Since Version	Note
TYPE	VARCHAR2(255)	YES		11.1.1.1.0	Always `TDOMAIN`
TUXDOMAI NID	NUMBER	NO	FK to TUXDOMAI N (ID)	11.1.1.1.0	
ATTRIBUTES	VARCHAR2(1023)	YES		11.1.1.1.0	Reserved.

RDOM

Tuxedo remote domain gateway information.

COLUMN	TYPE	Nullable	Constraints	Since Version	Note
ID	NUMBER	NO	PK	11.1.1.1.0	
NAME	VARCHAR2(255)	NO	Indexed	11.1.1.1.0	The name of the remote domain access point
RDOMID	VARCHAR2(255)	YES		11.1.1.1.0	Reserved
LDOM	NUMBER	NO	FK to LDOM(ID)	11.1.1.1.0	
STATUS	VARCHAR2(31)	NO		11.1.1.1.0	The status of the remote domain access point: • `ACTive` • `SUSpended` • `INItializing` • `INActive` • `UNKnown`
TYPE	VARCHAR2(255)	YES		11.1.1.1.0	The type of domain: `TDOMAIN`
ATTRIBUTES	VARCHAR2(1023)	YES		11.1.1.1.0	Reserved.

ARTREGION

Tuxedo application runtime for CICS region information.

COLUMN	TYPE	Nullable	Constraints	Since Version	Note
ID	NUMBER	NO	PK	11.1.1.1.0	Region ID
TUXDOMAINID	NUMBER	NO	FK to TUXDOMAIN (ID)	11.1.1.1.0	Domain ID
NAME	VARCHAR2(255)	NO	Unique	11.1.1.1.0	Region name
STATUS	VARCHAR2(31)	YES		11.1.1.1.0	The status of the Region: • `ACT`: Active • `INA`: Inactive • `INV`: Invalid, the node may not exist anymore.
STARTTIME	TIMESTAMP	YES		11.1.1.1.0	Start time
SHUTDOWNTIME	TIMESTAMP	YES		11.1.1.1.0	Shutdown time
TRANCLASSESDESC	VARCHAR2(4000)	YES		12.1.1.0	The content of file `tranclasses.desc`
ATTRIBUTES	VARCHAR2(1023)	YES		11.1.1.1.0	Reserved.

ARTTUXGROUP

Tuxedo application runtime for CICS region information

COLUMN	TYPE	Nullable	Constraints	Since Version	Note
ID	NUMBER	NO	PK	11.1.1.1.0	

COLUMN	TYPE	Nullable	Constraints	Since Version	Note
ARTREGIONI D	NUMBER	NO	FK to ARTREGION (ID)	11.1.1.1.0	
GROUPID	NUMBER	NO		11.1.1.1.0	Tuxedo Group ID
NAME	VARCHAR2(255)	NO		11.1.1.1.0	Tuxedo Group Name
STATUS	VARCHAR2(31)	YES		11.1.1.1.0	Reserved.
ATTRIBUTES	VARCHAR2(1023)	YES		11.1.1.1.0	Reserved.

ARTRESGROUP

Tuxedo application runtime for CICS group information

COLUMN	TYPE	Nullable	Constraints	Since Version	Note
ID	NUMBER	NO	PK	11.1.1.1.0	
ARTREGIONI D	NUMBER	NO	FK to ARTREGION (ID)	11.1.1.1.0	
NAME	VARCHAR2(255)	NO		11.1.1.1.0	Resource group name
STATUS	VARCHAR2(31)	YES		11.1.1.1.0	The status of the resource group: • ACT: Active • INA: Inactive • INV: Invalid, the node may not exist anymore.
ATTRIBUTES	VARCHAR2(1023)	YES		11.1.1.1.0	Reserved.

ARTTRAN

Tuxedo application runtime for CICS transaction information

COLUMN	TYPE	Nullable	Constraints	Since Version	Note
ID	NUMBER	NO	PK	11.1.1.1.0	
ARTRESGRO UPID	NUMBER	NO	FK to ARTRESGRO UP (ID)	11.1.1.1.0	
NAME	VARCHAR2(255)	NO		11.1.1.1.0	Resource group name
STATUS	VARCHAR2(31)	YES		11.1.1.1.0	The status of the Region group: • `ACT`: Active • `INA`: Inactive • `INV`: Invalid, the node may not exist anymore.
TRANCLASS	VARCHAR2(255)	YES		12.1.1.0	The transaction class which this resource group belongs to.
ATTRIBUTES	VARCHAR2(1023)	YES		11.1.1.1.0	Reserved.

IMS_TRANS

IMS transaction configuration

COLUMN	TYPE	Nullable	Constraints	Since Version	Note
NAME	VARCHAR2 (255)	NO	PK	12.1.3	Transaction code
SPA_SIZE	NUMBER	YES		12.1.3	SPA size

COLUMN	TYPE	Nullable	Constraints	Since Version	Note
RESPONSE	VARCHAR2 (255)	YES		12.1.3	Whether response is required for the transaction code specified in the "NAME" field. Its value is "Yes" or "No".
EDIT	VARCHAR2 (255)	YES		12.1.3	Whether the messages are converted to upper case automatically. Its value is "UC" or "ULC".
APPNAME	VARCHAR2 (255)	NO		12.1.3	The name of the COBOL application program that processes the transaction code specified in the "NAME" field.
CLASS	NUMBER	YES		12.1.3	The class of the transaction code. Its range is [1..999].
ATTRIBUTES	VARCHAR2(1023)	YES		12.1.3	Reserved.
TUXDOMAI NID	NUMBER	NO	PK, FK to TUXDOMAI N (ID)	12.1.3	Domain ID

IMS_APPS

IMS application configuration

COLUMN	TYPE	Nullable	Constraints	Since Version	Note
NAME	VARCHAR2 (255)	NO	PK	12.1.3	Application name
PGMTYPE	VARCHAR2 (255)	NO		12.1.3	For MPP, its value is "TP"; for BMP and BMPT, its value is "BATCH".
LANG	VARCHAR2 (255)	NO		12.1.3	For COBOL programs, its value is "COBOL"; for c programs, its value is "C".
ATTRIBUTES	VARCHAR2(1023)	YES		12.1.3	Reserved.
TUXDOMAI NID	NUMBER	NO	PK, FK to TUXDOMAI N (ID)	12.1.3	Domain ID

Tuxedo Monitoring Information

This section contains the following:

- POLICY
- ALERT_DEFINITION
- ALERT
- MON_CPSEGMENT
- MON_PAYLOAD
- MON_XA
- MON_SERVICE
- MON_GWTDOMAIN
- MON_GWTLINK
- MON_BRIDGE

- MON_BRGLINK

- MON_GWWS

- MON_ARTTCP

- MON_JESJOB

- MON_CLOB

- MON_IMS_DETAIL

- REPLAYDEFINITION

POLICY

Monitoring policy information.

COLUMN	TYPE	Nullable	Constraints	Since Version	Note
ID	NUMBER	NO	PK	11.1.1.1.0	
TUXDOMAI NID	NUMBER	NO	FK to TUXDOMAI N (ID)	11.1.1.1.0	
NAME	VARCHAR2(255)	NO	Indexed	11.1.1.1.0	Policy name.
STATUS	VARCHAR2(31)	NO		11.1.1.1.0	Policy status: • `enabled` • `disabled`
AGENTTYPE	VARCHAR2(255)	YES		11.1.1.1.0	Policy type: • `tuxedo`: Tuxedo monitoring policy. • `art`: Tuxedo application runtime for CICS monitoring policy.
CREATEDTI ME	TIMESTAMP	NO		11.1.1.1.0	Create time

COLUMN	TYPE	Nullable	Constraints	Since Version	Note
MODIFIEDTIME	TIMESTAMP	YES		11.1.1.1.0	Modify time
TSAMVERSION	VARCHAR2(255)	YES		11.1.1.1.0	Reserved.
DEFINITION	VARCHAR2(4000)	YES		11.1.1.1.0	Policy definition in XML.
ATTRIBUTES	VARCHAR2(1023)	YES		11.1.1.1.0	Reserved.

ALERT_DEFINITION

Monitoring alert policy definition.

COLUMN	TYPE	Nullable	Constraints	Since Version	Note
ID	NUMBER	NO	PK	11.1.1.1.0	
ARTREGIONID	NUMBER	YES		11.1.1.1.0	ART Region ID
NAME	VARCHAR2(255)	NO	UNIQUE	11.1.1.1.0	Alert definition name
STATUS	VARCHAR2(31)	NO		11.1.1.1.0	Status: • `enabled` • `disabled`
SEVERITY	VARCHAR2(31)	NO		11.1.1.1.0	Alert definition severity: • `information` • `warn` • `critical` • `fatal`

TYPE	VARCHAR2(255)	NO		11.1.1.1.0	Alert definition type: • `callpath` • `svc` • `xatran` • `gwtdomain` • `bridge` • `gwws` • `arttran` • `arttcp` • `jesjob` • `jesmetrics`
AGENTTYPE	VARCHAR2(255)	YES		11.1.1.1.0	Alert definition agent type: • `tuxedo` • `art` • `jes`
EXPRESSION	VARCHAR2(4000)	YES		11.1.1.1.0	Alert definition expression
EXPRESSION MODE	NUMBER	NO		11.1.1.1.0	Alert definition expression mode: • 0 (Metric Evaluation) • 1 (fml)
ACTION	VARCHAR2(255)	YES		11.1.1.1.0	Alert definition action. Null or a Tuxedo event broker name
RESFILTER	VARCHAR2(4000)	YES		11.1.1.1.0	Alert definition resource filter
RESFILTERM ODE	NUMBER	NO		11.1.1.1.0	Alert definition resource filter mode: • 0 (Selection) • 1 (advance)

TUXEVENTN AME	VARCHAR2(255)	YES		11.1.1.1.0	The event name posted to the Oracle Tuxedo event broker. The event name is the alert name by default; you can also specify it manually.
CREATEDTI ME	TIMESTAMP	YES		12.1.1.1	Alert definition created timestamp
MODIFIEDTI ME	TIMESTAMP	YES		12.1.1.1	Alert definition modified timestamp
ATTRIBUTES	VARCHAR2(1023)	YES		11.1.1.1.0	Reserved.
INTERVAL	NUMBER	YES		11.1.1.1.0	Alert check interval

ALERT

Alert information.

COLUMN	TYPE	Nullable	Constraints	Since Version	Note
ID	NUMBER	NO	PK	11.1.1.1.0	
ALERTDEFI D	NUMBER	YES		11.1.1.1.0	
NAME	VARCHAR2(255)	NO	Indexed	11.1.1.1.0	Alert definition name
DOMAIN	VARCHAR2(255)	YES		11.1.1.1.0	Tuxedo domain name
MACHINE	VARCHAR2(255)	YES		11.1.1.1.0	Tuxedo machine LMID
TUXGROUP	VARCHAR2(255)	YES		11.1.1.1.0	Tuxedo group number
PROCESSNA ME	VARCHAR2(255)	YES		11.1.1.1.0	Tuxedo process name

SERVERID	NUMBER	YES		11.1.1.1.0	Tuxedo server ID
PID	NUMBER	YES		11.1.1.1.0	Tuxedo process ID
LOGTIME	TIMESTAMP	NO		11.1.1.1.0	The time an alert occurs.
CLEARTIME	TIMESTAMP	YES		11.1.1.1.0	The time an alert is cleared.
SEVERITY	VARCHAR2(31)	NO		11.1.1.1.0	Alert definition severity: • information • warn • critical • fatal
ALERTTYPE	VARCHAR2(31)	NO		11.1.1.1.0	Alert definition type: • callpath • svc • xatran • gwtdomain • bridge • gwws • arttran • arttcp • jesjob • jesmetrics • system
REASON	VARCHAR2(1023)	YES		11.1.1.1.0	The reason/cause for the alert.
STATUS	VARCHAR2(31)	NO		11.1.1.1.0	The status of an alert: • 0 (new) • 1 (cleared)

TSAMVERSION	VARCHAR2(255)	YES		11.1.1.1.0	TSAM Plus agent version: • null (11g or above) • 1.1 (TSAM 1.1 and 10gR3)
ATTRIBUTES	VARCHAR2(1023)	YES		11.1.1.1.0	Reserved.

MON_CPSEGMENT

Call path detail information.

COLUMN	TYPE	Nullable	Constraints	Since Version	Note
ID	NUMBER	NO	PK	11.1.1.1.0	
CORRELATIONID	VARCHAR2(255)	NO	Indexed	11.1.1.1.0	
DOMAIN	VARCHAR2(255)	NO		11.1.1.1.0	Tuxedo domain name
MACHINE	VARCHAR2(255)	NO		11.1.1.1.0	Tuxedo machine LMID
TUXGROUP	VARCHAR2(255)	YES		11.1.1.1.0	Tuxedo group number
PROCESSNAME	VARCHAR2(255)	NO		11.1.1.1.0	Tuxedo server process name
SERVERID	NUMBER	YES		11.1.1.1.0	Tuxedo server ID
PID	NUMBER	NO		11.1.1.1.0	Tuxedo server process ID
USERNAME	VARCHAR2(255)	YES		12.1.1.0	Tuxedo user name
DEPTH	NUMBER	YES		11.1.1.1.0	Call path depth

TARGETSVC	VARCHAR2(255)	YES		11.1.1.1.0	Target service
HOSTSVC	VARCHAR2(255)	YES		11.1.1.1.0	Host service
CPUTIME	NUMBER	YES		11.1.1.1.0	CPU time
SYSCPUTIME	NUMBER	YES		12.1.1.0	SYS CPU time
USRCPUTIME	NUMBER	YES		12.*1*.1.0	User CPU time
ELAPSETIME	NUMBER	YES		11.1.1.1.0	Elapse time
TOTALTIME	NUMBER	YES	Indexed	11.1.1.1.0	Total time
URCODE	NUMBER	YES		11.1.1.1.0	tpurcode
ERRNO	NUMBER	YES	Indexed	11.1.1.1.0	tperrno
STATUS	NUMBER	YES		11.1.1.1.0	Status: • null • 1
MSGTYPE	VARCHAR2(16)	YES		11.1.1.1.0	Message type: • ARP • ARQ
MSGSIZE	NUMBER	YES		11.1.1.1.0	Message size
MSGSTAGE	VARCHAR2(16)	YES		11.1.1.1.0	Message stage: • STMO • ME2NET • NET2ME • ME2Q • Q2ME • ME2QFAIL
MSGQUEUED	NUMBER	YES		11.1.1.1.0	Message queue length

LOCALGTRID	VARCHAR2(255)	YES	Indexed		11.1.1.1.0	Local GTRID
MSGID	VARCHAR2(255)	YES			11.1.1.1.0	Message ID
CALLMODE	NUMBER	YES			11.1.1.1.0	Call mode: • 1 (tpacall) • 2 (tpcall) • 3 (tpforward)
CALLFLAG	NUMBER	YES			11.1.1.1.0	Call flag
SVCSEQ	VARCHAR2(1023)	YES			11.1.1.1.0	Service sequence
PSVCSEQ	VARCHAR2(1023)	YES			11.1.1.1.0	Parent service sequence
IPCQID	VARCHAR2(64)	YES			11.1.1.1.0	IPC queue ID
LOGTIME	TIMESTAMP	YES			11.1.1.1.0	Log time
STARTTIME	TIMESTAMP	NO			11.1.1.1.0	Call start time
LASTTIME	TIMESTAMP	YES			11.1.1.1.0	Call last time
PROCTYPE	NUMBER	YES			11.1.1.1.0	Tuxedo Process type: • `0 (NCLIENT)` • `1 (WCLIENT)` • `2 (APPSERVER)` • `3 (GWTDOMAIN)` • `4 (BRIDGE)` • `5 (GWWS)` • `6 (WSH)` • `7 (JSH)` • `8 (ISH)` • `9 (TMQUEUE)` • `10 (TMQFORWARD)`

TSAMVERSION	VARCHAR2(255)	YES		11.1.1.1.0	TSAM agent version: • null (11g or above) • 1.1 (TSAM 1.1 and 10gR3)
CLTADDR	VARCHAR2(255)	YES		11.1.1.1.0	Tuxedo client address
LDOM	VARCHAR2(255)	YES		11.1.1.1.0	Ldom name: Ldom ID
RDOM	VARCHAR2(255)	YES		11.1.1.1.0	Rdom name: Rdom ID
MSGCVTTIME	NUMBER	YES		11.1.1.1.0	Message convert time
ATTRIBUTES	VARCHAR2(4000)	YES		11.1.1.1.0	Reserved.
EXTTYPE	VARCHAR2(255)	YES		12.1.1.0	Call path extended type
EXTSUBTYPE	VARCHAR2(255)	YES		12.1.1.0	Call path extended subtype
EXTSEQ	NUMBER	YES		12.1.1.0	Call path extended sequence
EXTCORRSEQ	NUMBER	YES		12.1.1.0	Call path extended parent sequence
ECID	VARCHAR2(1024)	YES		12.1.3	ECID (Execution Context ID)
MSGTAG	VARCHAR2(4000)	YES		12.1.3 RP006	Message Tag
MD5	VARCHAR(40)	YES		12.1.3 RP008	MD5 in MON_CLOB_CP
MD5_DTL	VARCHAR(40)	YES		12.1.3 RP008	MD5 in MON_CLOB_CPDTL

MON_PAYLOAD

User payload data.

COLUMN	TYPE	Nullable	Constraints	Since Version	Note
ID	NUMBER	NO		12.2.2	auto-generated ID
DOMAINID	VARCHAR2(30)	yes		12.2.2	Domain ID, it is null when no `DOMAINID` is set in `UBBCONFIG`
LMID	VARCHAR2(30)	NO		12.2.2	Machine LMID
GROUPID	SMALLINT	NO		12.2.2	Tuxedo group number
SERVERID	SMALLINT	NO		12.2.2	Server ID
SVCNAME	VARCHAR2(127)	NO		12.2.2	Service name
CORRELATIONID	VARCHAR2(255)	YES		12.2.2	Call path `CORRELATIONID`
ECID	VARCHAR2(1024)	YES		12.2.2	Tuxedo call ECID
TPERRNO	SMALLINT	NO		12.2.2	`tperrno`

COLUMN	TYPE	Nullable	Constraints	Since Version	Note
valueTypeIndex	SMALLINT	NO		12.2.2	Tuxedo buffer type index, defined in `weblogic.wtc.jatmi.StandardTypes` CARRAY : 16 STRING : 17 FML : 18 VIEW : 19 X_OCTET : 20 X_C_TYPE : 21 X_COMMON : 22 FML32 : 23 VIEW32 : 24 XML : 25 MBSTRING : 26
valueSubType	VARCHAR2(127)	YES		12.2.2	Tuxedo sub buffer type. It is the view or view32 name
PAYLOADTYPE	SMALLINT	NO		12.2.2	1 means request; 2 means reply
value	BLOB	NO		12.2.2	User payload value
LOGTIME	Date	No		12.2.2	

MON_XA

XA transaction information.

COLUMN	TYPE	Nullable	Constraints	Since Version	Note
ID	NUMBER	NO	PK	11.1.1.1.0	

LOCALGTRID	VARCHAR2(255)	NO	Indexed	11.1.1.1.0	Local GTRID
DOMAIN	VARCHAR2(255)	YES		11.1.1.1.0	Tuxedo domain name
MACHINE	VARCHAR2(255)	YES		11.1.1.1.0	Tuxedo machine LMID
TUXGROUP	VARCHAR2(255)	YES		11.1.1.1.0	Tuxedo group number
PROCESSNAME	VARCHAR2(255)	YES		11.1.1.1.0	Tuxedo server process name
SERVERID	NUMBER	YES		11.1.1.1.0	Tuxedo server ID
PID	NUMBER	YES		11.1.1.1.0	Tuxedo process ID
PROCTYPE	NUMBER	YES		11.1.1.1.0	Tuxedo process type: 0 (NCLIENT) 1 (WCLIENT) 2 (APPSERVER) 3 (GWTDOMAIN) 4 (BRIDGE) 5 (GWWS) 6 (WSH) 7 (JSH) 8 (ISH) 9 (TMQUEUE) 10 (TMQFORWARD)
LOGTIME	TIMESTAMP	YES	Indexed	11.1.1.1.0	Log time
XACODE	NUMBER	YES		11.1.1.1.0	The XA Routine return code
REMOTEGTRID	VARCHAR2(255)	YES		11.1.1.1.0	Remote GTRID
RMID	NUMBER	YES		11.1.1.1.0	RMID

XANAME	VARCHAR2(255)	YES	11.1.1.1.0	The transaction routine name: • `tpbegin` • `tpcommit` • `tprollback` • `tpabort` • `xa_commit` • `xa_start` • `xa_prepare` • `xa_rollback` • `xa_end` • `tms_msg_xxx` (for `GWTDOMAIN` XA transaction activities) • `xa_msg_xxx` (for `GWTDOMAIN` XA transaction activities)
LDOM	VARCHAR2(255)	YES	11.1.1.1.0	Ldom name: Ldom ID
RDOM	VARCHAR2(255)	YES	11.1.1.1.0	Rdom name: Rdom ID
MSGCVTTIME	NUMBER	YES	11.1.1.1.0	Message convert time
EXECTIME	NUMBER	YES	11.1.1.1.0	Transaction execute time
FLAGS	NUMBER	YES	11.1.1.1.0	The XA Routine call flag
TIMEOUT	NUMBER	YES	11.1.1.1.0	The XA Routine timeout

TSAMVERSION	VARCHAR2(255)	YES		11.1.1.1.0	TSAM agent version: • null (11g or above) • 1.1 (TSAM 1.1 and 10gR3)
ATTRIBUTES	VARCHAR2(1023)	YES		11.1.1.1.0	Reserved.

MON_SERVICE

Tuxedo service call information.

COLUMN	TYPE	Nullable	Constraints	Since Version	Note
ID	NUMBER	NO	PK	11.1.1.1.0	
SVCNAME	VARCHAR2(255)	NO	Indexed	11.1.1.1.0	Service name
DOMAIN	VARCHAR2(255)	NO	Indexed	11.1.1.1.0	Tuxedo domain name
MACHINE	VARCHAR2(255)	NO	Indexed	11.1.1.1.0	Tuxedo machine LMID
TUXGROUP	VARCHAR2(255)	NO	Indexed	11.1.1.1.0	Tuxedo group number
PROCESSNAME	VARCHAR2(255)	YES		11.1.1.1.0	Tuxedo server process name
SERVERID	NUMBER	YES		11.1.1.1.0	Tuxedo server ID
PID	NUMBER	YES		11.1.1.1.0	Tuxedo process ID
THREADID	NUMBER	YES		11.1.1.1.0	Tuxedo thread ID

PROCTYPE	NUMBER	YES		11.1.1.1.0	Tuxedo Process type: • `0 (NCLIENT)` • `1 (WCLIENT)` • `2 (APPSERVER)` • `3 (GWTDOMAIN)` • `4 (BRIDGE)` • `5 (GWWS)` • `6 (WSH)` • `7 (JSH)` • `8 (ISH)` • `9 (TMQUEUE)` • `10 (TMQFORWARD)`
USERNAME	VARCHAR2(255)	YES	Indexed	12.1.1.0	Tuxedo user name
LOGTIME	TIMESTAMP	NO	Indexed	11.1.1.1.0	Log time
MSGSIZE	NUMBER	YES		11.1.1.1.0	Message size
MSGTYPE	VARCHAR2(6)	YES		11.1.1.1.0	Message type: • `ARP` • `ARQ`
MSGQUEUED	NUMBER	YES		11.1.1.1.0	Message queue length
MSGWAITTIME	NUMBER	YES		11.1.1.1.0	Message wait time
STATUS	VARCHAR2(31)	YES		11.1.1.1.0	Reserved
ERRNO	NUMBER	YES		11.1.1.1.0	tperrno
URCODE	NUMBER	YES		11.1.1.1.0	tpurcode
EXECTIME	NUMBER	YES		11.1.1.1.0	Service execute time
CPUTIME	NUMBER	YES		11.1.1.1.0	Service CPU time

SYSCPUTIME	NUMBER	YES		12.1.1.0	Service SYS CPU time
USRCPUTIME	NUMBER	YES		12.1.1.0	Service USER CPU time
TSAMVERSION	VARCHAR2(255)	YES		11.1.1.1.0	TSAM agent version: • null (11g or above) • 1.1 (TSAM 1.1 and 10gR3)
ATTRIBUTES	VARCHAR2(1023)	YES		11.1.1.1.0	Reserved
ARTTRAN	VARCHAR2(255)	YES		12.1.3	ART CICS transaction server name
ARTSVRTYPE	NUMBER	YES		12.1.3 RP001	
ARTPROGRA MENAME	VARCHAR2(255)	YES		12.1.3 RP001	

MON_GWTDOMAIN

Tuxedo /T domain gateway performance statistics master information.

COLUMN	TYPE	Nullable	Constraints	Since Version	Note
ID	NUMBER	NO	PK	11.1.1.1.0	
DOMAIN	VARCHAR2(255)	NO		11.1.1.1.0	Tuxedo domain name
MACHINE	VARCHAR2(255)	NO		11.1.1.1.0	Tuxedo machine LMID
TUXGROUP	VARCHAR2(255)	YES		11.1.1.1.0	Tuxedo group number

PROCESSNAME	VARCHAR2(255)	NO		11.1.1.1.0	Tuxedo server process name
SERVERID	NUMBER	YES		11.1.1.1.0	Tuxedo server ID
PID	NUMBER	NO		11.1.1.1.0	Tuxedo process ID
LDOM	VARCHAR2(255)	YES	Indexed	11.1.1.1.0	Ldom name: Ldom ID
LOGTIME	TIMESTAMP	NO	Indexed	11.1.1.1.0	Log time
LINKNUMBER	NUMBER	YES		11.1.1.1.0	Link number
MSGQUEUED	NUMBER	YES		11.1.1.1.0	Message queue length
REQUESTQUEUED	NUMBER	YES		11.1.1.1.0	Reserved
WORKLOAD	NUMBER	YES		11.1.1.1.0	Reserved
PROCTYPE	NUMBER	YES		11.1.1.1.0	Tuxedo process type: 3 (GWTDOMAIN)
TSAMVERSION	VARCHAR2(255)	YES		11.1.1.1.0	TSAM agent version: • null (11g or above) • 1.1 (TSAM 1.1 and 10gR3)
ATTRIBUTES	VARCHAR2(1023)	YES		11.1.1.1.0	Reserved.

MON_GWTLINK

Tuxedo /T domain gateway performance statistics detail information.

COLUMN	TYPE	Nullable	Constraints	Since Version	Note
ID	NUMBER	NO	PK	11.1.1.1.0	

MON_GWTD OMAINID	NUMBER	NO	FK to MON_GWTD OMAIN (ID)	11.1.1.1.0	
LINKADDRE SS	VARCHAR2(255)	YES		11.1.1.1.0	Link address
LOGTIME	TIMESTAMP	NO		12.1.1.0	Log time
LINKSTATU S	NUMBER	YES		11.1.1.1.0	Link status: • 0 (UP) • -1 (DOWN) • 1 (INIT)
PENDNUMB ER	NUMBER	YES		11.1.1.1.0	Network Pending Number
PENDBYTES	NUMBER	YES		11.1.1.1.0	Network Pending Bytes
ACCNUMBE R	NUMBER	YES		11.1.1.1.0	Network Message Number
ACCBYTES	NUMBER	YES		11.1.1.1.0	Network Message Bytes
WAITREPLY NUMBER	NUMBER	YES		11.1.1.1.0	Network Outstanding Requests
ATTRIBUTES	VARCHAR2(1023)	YES		11.1.1.1.0	Reserved.

MON_BRIDGE

Tuxedo bridge gateway performance statistics master information.

COLUMN	TYPE	Nullable	Constraints	Since Version	Note
ID	NUMBER	NO	PK	11.1.1.1.0	
DOMAIN	VARCHAR2(255)	NO	Indexed	11.1.1.1.0	Tuxedo domain name

COLUMN	TYPE	Nullable	Constraints	Since Version	Note
MACHINE	VARCHAR2(255)	NO		11.1.1.1.0	Tuxedo machine LMID
TUXGROUP	VARCHAR2(255)	YES		11.1.1.1.0	Tuxedo group number
PROCESSNAME	VARCHAR2(255)	NO		11.1.1.1.0	Tuxedo server process name
SERVERID	NUMBER	YES		11.1.1.1.0	Tuxedo server ID
PID	NUMBER	NO		11.1.1.1.0	Tuxedo process ID
LOGTIME	TIMESTAMP	NO	Indexed	11.1.1.1.0	Log time
LINKNUMBER	NUMBER	YES		11.1.1.1.0	Link number
MSGQUEUED	NUMBER	YES		11.1.1.1.0	Message queue length
REQUESTQUEUED	NUMBER	YES		11.1.1.1.0	Reserved
WORKLOAD	NUMBER	YES		11.1.1.1.0	Reserved
PROCTYPE	NUMBER	YES		11.1.1.1.0	
TSAMVERSION	VARCHAR2(255)	YES		11.1.1.1.0	TSAM agent version: • null (11g or above) • 1.1 (TSAM 1.1 and 10gR3)
ATTRIBUTES	VARCHAR2(1023)	YES		11.1.1.1.0	Reserved

MON_BRGLINK

Tuxedo /T domain gateway performance statistics detail information.

COLUMN	TYPE	Nullable	Constraints	Since Version	Note
ID	NUMBER	NO	PK	11.1.1.1.0	

MON_BRIDG EID	NUMBER	NO	FK to MON_BRIDG E (ID)	11.1.1.1.0	
LINKADDRE SS	VARCHAR2(255)	YES		11.1.1.1.0	Link address
LOGTIME	TIMESTAMP	NO		12.1.1.0	Log time
LINKSTATU S	NUMBER	YES		11.1.1.1.0	Link status: • 0 (UP) • -1 (DOWN) • 1 (INIT)
PENDNUMB ER	NUMBER	YES		11.1.1.1.0	Network Pending Number
PENDBYTES	NUMBER	YES		11.1.1.1.0	Network Pending Bytes
ACCNUMBE R	NUMBER	YES		11.1.1.1.0	Network Message Number
ACCBYTES	NUMBER	YES		11.1.1.1.0	Network Message Bytes
TSAMVERSI ON	VARCHAR2(255)	YES		11.1.1.1.0	TSAM agent version: • null (11g or above) • 1.1 (TSAM 1.1 and 10gR3)
ATTRIBUTES	VARCHAR2(1023)	YES		11.1.1.1.0	

MON_GWWS

Tuxedo GWWS performance statistics information.

COLUMN	TYPE	Nullable	Constraints	Since Version	Note
ID	NUMBER	NO	PK	11.1.1.1.0	

ACTCLIENT NUM	NUMBER	YES		11.1.1.1.0	Active client number
ACTTHREAD NUM	NUMBER	YES		11.1.1.1.0	Active Thread Number
ATTRIBUTES	VARCHAR2(1023)	YES		11.1.1.1.0	Reserved
AVGINTIME	NUMBER	YES		11.1.1.1.0	Average Inbound Process Time
AVGOUTTIM E	NUMBER	YES		11.1.1.1.0	Average Outbound Process Time
DOMAIN	VARCHAR2(255)	NO		11.1.1.1.0	Tuxedo domain name
TUXGROUP	VARCHAR2(255)	YES		11.1.1.1.0	Tuxedo group number
GWWSID	VARCHAR2(255)	NO		11.1.1.1.0	GWWS ID
INBOUNDPE ND	NUMBER	YES		11.1.1.1.0	Inbound Pending Request
OUTBOUND PEND	NUMBER	YES		11.1.1.1.0	Outbound Pending Request
INOWFAILN UM	NUMBER	YES		11.1.1.1.0	Inbound One-Way Failure Number
INOWSUCCN UM	NUMBER	YES		11.1.1.1.0	Inbound One-Way Success Number
INRPCFAILN UM	NUMBER	YES		11.1.1.1.0	Inbound RPC Failure Number
INRPCSUCC NUM	NUMBER	YES		11.1.1.1.0	Inbound RPC Success Number
MACHINE	VARCHAR2(255)	NO		11.1.1.1.0	Tuxedo machine LMID

OUTOWFAIL NUM	NUMBER	YES		11.1.1.1.0	Outbound One-Way Failure Number
OUTOWSUC CNUM	NUMBER	YES		11.1.1.1.0	Outbound One-Way Success Number
OUTRPCFAI LNUM	NUMBER	YES		11.1.1.1.0	Outbound RPC Failure Number
OUTRPCSUC CNUM	NUMBER	YES		11.1.1.1.0	Outbound RPC Success Number
PID	NUMBER	NO		11.1.1.1.0	Tuxedo process ID
PROCESSNA ME	VARCHAR2(255)	NO		11.1.1.1.0	Tuxedo process name
PROCTYPE	NUMBER	YES		11.1.1.1.0	Tuxedo process type: 5 (GWWS)
SERVERID	NUMBER	YES		11.1.1.1.0	Tuxedo server ID
LOGTIME	TIMESTAMP	YES		11.1.1.1.0	Log time
TSAMVERSI ON	VARCHAR2(255)	YES		11.1.1.1.0	TSAM agent version: • null (11g or above) • 1.1 (TSAM 1.1 and 10gR3)

MON_ARTTCP

Tuxedo application runtime for CICS TCP listener performance statistics information.

COLUMN	TYPE	Nullable	Constraints	Since Version	Note
ID	NUMBER	NO	PK	11.1.1.1.0	
ATTRIBUTES	VARCHAR2(1023)			11.1.1.1.0	Reserved
DOMAIN	VARCHAR2(255)	NO		11.1.1.1.0	Tuxedo domain name

TUXGROUP	VARCHAR2(255)	YES		11.1.1.1.0	Tuxedo group number
TRANFAILN UM	NUMBER	YES		11.1.1.1.0	Failed Transaction Number
TRANSUCCN UM	NUMBER	YES		11.1.1.1.0	Successful Transaction Number
MACHINE	VARCHAR2(255)	NO		11.1.1.1.0	Tuxedo machine LMID
SESSIONNU M	NUMBER	YES		11.1.1.1.0	Session Number
PID	NUMBER	NO		11.1.1.1.0	Tuxedo process ID
PROCESSNA ME	VARCHAR2(255)	NO		11.1.1.1.0	Tuxedo process name
PROCTYPE	SMALLINT	YES		11.1.1.1.0	Tuxedo process type: 2 (APPSERVER)
SERVERID	NUMBER	YES		11.1.1.1.0	Tuxedo server ID
LOGTIME	TIMESTAMP	NO		11.1.1.1.0	Log time
TSAMVERSI ON	VARCHAR2(255)	YES		11.1.1.1.0	TSAM agent version: null (11g or above)

MON_JESJOB

Tuxedo application runtime for Batch job information.

COLUMN	TYPE	Nullable	Constraints	Since Version	Note
ID	NUMBER	NO	PK	11.1.1.2.0	Job ID
DOMAIN	VARCHAR2(255)	NO	PK	11.1.1.2.0	Tuxedo domain name
MACHINE	VARCHAR2(255)	YES		11.1.1.2.0	Tuxedo machine LMID

NAME	VARCHAR2(32)	YES	Indexed	11.1.1.2.0	Job name
TYPRUN	VARCHAR2(7)	YES		11.1.1.2.0	Job typrun
PRIORITY	NUMBER	YES	Indexed	11.1.1.2.0	Job priority
OWNER	VARCHAR2(32)	YES	Indexed	11.1.1.2.0	Job owner
EXECMAC	VARCHAR2(32)	YES		11.1.1.2.0	Job executing machine
STATUS	VARCHAR2(12)	YES		11.1.1.2.0	Job status: • CONVING • WAITING • EXECUTING • DONE • HOLD_CONVING • HOLD_WAITING • HOLD_DELAY • FAIL • DISCARD • INDOUBT
JOBCLASS	CHAR(1)	YES	Indexed	11.1.1.2.0	Job class. Value may be [A-Z], [0-9]
RUNNINGSTEP	VARCHAR2(32)	YES		11.1.1.2.0	Job running step
EXECSTATUS	VARCHAR2(32)	YES		11.1.1.2.0	Job executing status
SUBMITTIME	NUMBER	YES		11.1.1.2.0	Submit time
WAITINGTIME	NUMBER	YES		11.1.1.2.0	Job waiting time
EXECTIME	NUMBER	YES		11.1.1.2.0	Job execution time
ENDTIME	NUMBER	YES		11.1.1.2.0	Job end time

PURGETIME	NUMBER	YES		11.1.1.2.0	Job purge time
LOGTIME	TIMESTAMP	NO	Indexed	11.1.1.2.0	Log time
USRCPU	NUMBER	YES		11.1.1.2.0	Job user CPU time
SYSCPU	NUMBER	YES		11.1.1.2.0	Job system CPU time
INITIATORPID	NUMBER	YES		11.1.1.2.0	Job initiator PID
ATTRIBUTES	VARCHAR2(1023)	YES		12.1.1.0	Reserved

MON_CLOB

Global CLOB information table.

COLUMN	TYPE	Nullable	Constraints	Since Version	Note
MD5	VARCHAR2(40)	NO	PK	12.1.1.0	Call pattern content MD5 If MD5 is a user name, CONTENT is the saved queries XML.
CONTENT	CLOB	NO		12.1.1.0	Call pattern content
ATTRIBUTES	VARCHAR2(1023)	YES		12.1.1.0	Reserved

MON_IMS_DETAIL

Tuxedo application runtime for IMS transactions or programs.

COLUMN	TYPE	Nullable	Constraints	Since Version	Note
ID	NUMBER	NO	PK	12.1.3	
DOMAIN	VARCHAR2(255)	NO	Indexed	12.1.3	Tuxedo domain name

COLUMN	TYPE	Nullable	Constraints	Since Version	Note
MACHINE	VARCHAR2(255)	NO	Indexed	12.1.3	Tuxedo machine LMID
TUXGROUP	VARCHAR2(255)	NO	Indexed	12.1.3	Tuxedo group number
PROCESSNAME	VARCHAR2(255)	YES		12.1.3	Tuxedo process name
SERVERID	NUMBER	YES		12.1.3	Tuxedo server ID
PID	NUMBER	YES		12.1.3	Tuxedo process ID
LOGTIME	TIMESTAMP	YES	Indexed	12.1.3	Log time
TSAMVERSION	VARCHAR2(255)	YES		12.1.3	TSAM agent version. Its value is null.
TRANSACTION_NAME	VARCHAR2(255)	YES	Indexed	12.1.3	Transaction name
TRANSACTION_CLASS	NUMBER	YES	Indexed	12.1.3	Transaction class
LOGIC_TERMINAL	VARCHAR2(255)	YES		12.1.3	Logic terminal name
REGION_TYPE	VARCHAR2(255)	NO	Indexed	12.1.3	Region type
JOB_NAME	VARCHAR2(255)	YES		12.1.3	JES submitted job name
USER_ID	VARCHAR2(255)	YES		12.1.3	User ID of DFSRC00
START_TIME	TIMESTAMP	NO		12.1.3	Transaction/Program start time
END_TIME	TIMESTAMP	NO		12.1.3	Transaction/Program end time
ELAPSED_TIME	NUMBER	YES		12.1.3	Transaction/Program elapsed time

COLUMN	TYPE	Nullable	Constraints	Since Version	Note
SYS_CPU_TIME	NUMBER	YES		12.1.3	Transaction/Program system CPU time
USER_CPU_TIME	NUMBER	YES		12.1.3	Transaction/Program user CPU time
PROGRAM_NAME	VARCHAR2 (255)	YES	Indexed	12.1.3	Program name
PSB_NAME	VARCHAR2 (255)	YES		12.1.3	PSB name
PROGRAM_ELAPSED_TIME	NUMBER	YES		12.1.3	Total program elapsed time, includes DL/I elapsed time
SPA_SIZE	NUMBER	YES		12.1.3	Current SPA size
ABEND_NUMBER	NUMBER	YES		12.1.3	Abend code
ENQ_NUMBER	NUMBER	YES		12.1.3	Message number pushed in /Q
DEQ_NUMBER	NUMBER	YES		12.1.3	Message number popped from /Q
DLI_TIME	NUMBER	YES		12.1.3	DL/I elapsed time
DLIS	VARCHAR2 (2048)	YES		12.1.3	DL/I list
ATTRIBUTES	VARCHAR2(1023)	YES		12.1.3	Reserved

REPLAYDEFINITION

Test load generator database table.

COLUMN	TYPE	Nullable	Constraints	Since Version	Note
NAME	VARCHAR2(255 BYTE)	NO	PK	12.2.2	
REPLAYDEFI NITION	CLOB			12.2.2	
CREATEDTI ME	TIMESTAMP			12.2.2	
MODIFIEDTI ME	TIMESTAMP			12.2.2	
ATTRIBUTES	VARCHAR2(1023 BYTE)			12.2.2	

TSAM Plus Management Information

This section contains the following:

- GLOBALCONFIG
- ROLES
- USERS

GLOBALCONFIG

TSAM Plus global parameters information.

COLUMN	TYPE	Nullable	Constraints	Since Version	Note
PARAM	VARCHAR2(255)	NO	PK	11.1.1.1.0	Parameter name
VALUE	VARCHAR2(255)	YES		11.1.1.1.0	Parameter value
ATTRIBUTES	VARCHAR2(1023)	YES		11.1.1.1.0	Reserved

ROLES

TSAM Plus role information.

COLUMN	TYPE	Nullable	Constraints	Since Version	Note
NAME	VARCHAR2(255)	NO	PK	11.1.1.2.0	Role name
ID	NUMBER	NO	Unique	11.1.1.2.0	Role ID
DESCRIPTION	VARCHAR2(255)	YES		11.1.1.2.0	Role description
DEFINITION	VARCHAR2(4000)	YES		11.1.1.2.0	Role definition
ATTRIBUTES	VARCHAR2(1023)	YES		11.1.1.2.0	Reserved

USERS

TSAM Plus user information.

COLUMN	TYPE	Nullable	Constraints	Since Version	Note
NAME	VARCHAR2(255)	NO	PK	11.1.1.1.0	User login name
ROLENAMES	VARCHAR2(255)	NO		11.1.1.2.0	Role names the user belongs to
PASSWORD	VARCHAR2(255)	NO		11.1.1.1.0	User password
FULLNAME	VARCHAR2(255)	YES	Indexed	11.1.1.1.0	User full name
DESCRIPTION	VARCHAR2(255)	YES		11.1.1.1.0	User description
MODIFIEDTIME	TIMESTAMP	YES		11.1.1.1.0	User modification time

ATTRIBUTES	VARCHAR2(1023)	YES		11.1.1.1.0	Reserved
SAVEDQUER IES	VARCHAR2(4000)	YES		12.1.3	Saved queries XML. If the length exceeds 4000, only the user name is stored here and the actual value should be found in `MON_CLOB` table.

Enterprise Manager for Tuxedo Target Reference

This chapter contains the following sections:

Understanding Properties and Metrics Tables

Property Characters

The following characters are used for describing a property:

- **Visible**: indicates the property is visible on the Target home page on Enterprise Manager console. If not specified, the property is invisible.

- **Editable**: indicates the property can be modified on Enterprise Manager console. If not specified, the property is not editable. Editable(*) indicates it's a mandatory property that you cannot leave empty when adding a standalone target.

- **CMD Option**: indicates the property is specified by a command option of the process.

- **UBB Parameter**: indicates the property is specified by the parameter of the corresponding entry defined in `UBBCONFIG(5).`

Metrics Tables

Metrics tables in this book lists all the metrics belonging to each target. You can also check all metrics of a target from the Oracle Enterprise Manager Cloud Control by clicking the target menu > **Monitoring** > **All Metrics**.

Status Column

The Status column in availability metrics tables of Tuxedo targets is retrieved from `TA_STATE` field of the corresponding Tuxedo `TM_MIB` classes. The mapping rule from `TS_STATE` to Status column is:

TA_STATE	Status
ACT | MIG | CLE | RES| PAR	1
INA | SUS | DEA|EXI	0

Collection Interval

All the Collection Interval value listed in the following metrics tables are default value and can be customized on the **Metric and Collection Settings** page of each target (Click target menu > **Monitoring** > **Metric and Collection Settings**).

Tuxedo Targets

Table 3-1 lists all Oracle Tuxedo targets the Enterprise Manager for Oracle Tuxedo supports.

Table 3-1 Tuxedo Targets Description

Target	Description
Tuxedo Home	This target is an install homes target which corresponds to a Tuxedo installation.
Tuxedo Application Home	This target is a home directory to deploy Tuxedo applications from Enterprise Manager for Oracle Tuxedo.
Tuxedo tlisten	This target corresponds to a tuxedo tlisten process.
Tuxedo Domain	This target is an Enterprise Manager system target and corresponds to a Tuxedo Domain.
Tuxedo Machine	This target corresponds to an entry defined in the MACHINES section of the TUXCONFIG file of monitored Tuxedo domain.
Tuxedo Group	This target is a repository side target, which corresponds to an entry defined in the GROUPS section of the TUXCONFIG file of monitored Tuxedo domain.
Tuxedo Server	This target corresponds to an entry defined in the SERVERS section of the TUXCONFIG file of monitored Tuxedo domain.
Tuxedo System Server	This target corresponds to an entry defined in the SERVERS section of the TUXCONFIG file of monitored Tuxedo domain.
Tuxedo Bridge	This target corresponds to a Tuxedo BRIDGE process.
Tuxedo TMS	This target corresponds to a Tuxedo global transaction manager server entry defined in TUXCONFIG.
Tuxedo /T Domain Gateway	This target corresponds to a GWTDOMAIN entry defined in TUXCONFIG.
Tuxedo Web Service Gateway	This target corresponds to a GWIDOMAIN entry defined in TUXCONFIG.
Tuxedo Web Service Gateway	This target corresponds to a Tuxedo SALT GWWS entry defined in TUXCONFIG.
Tuxedo Workstation Listener	This target corresponds to a Tuxedo WSL entry defined in TUXCONFIG.
Tuxedo Jolt Listener	This target corresponds to a Tuxedo JSL entry defined in TUXCONFIG.

Table 3-1 Tuxedo Targets Description

Target	Description
Tuxedo /Q Manager Server	This target is used to monitor Tuxedo /Q, from which you can view queue related statistics information.
Tuxedo Event Broker	This target corresponds to a Tuxedo TMSYSEVT or TMUSREVR entry defined in TUXCONFIG.
Tuxedo LMS	This target corresponds to an LMS entry defined in TUXCONFIG.

Tuxedo Home

Description

This target is an installation home target that corresponds to a Tuxedo installation.

Properties

Name	Display Label	Characters	Description
Name	Name	Visible Editable	[Host Name]:[TUXDIR]
Version	Version	Visible Editable	Tuxedo installation release number, such as 12.1.1.0 **Note:** This version determines the version of Tuxedo Machine and its subordinate targets. Target version determines which UBB parameters can display on the target homepage.
RP Level	RP Level	Visible Editable	Rolling patch package level
Directory	Directory	Visible Editable	Tuxedo installation directory

Tuxedo Application Home

Description

This target is a home directory to deploy Tuxedo applications from Tuxedo add-on.

Properties

Name	Display Label	Characters	Description
Name	Name	Visible Editable	[Host Name]:[Directory]
Directory	Directory	Visible Editable	A root directory to deploy Tuxedo applications.
ENV_PATH	PATH Environment variable	Visible Editable	A list of paths separated by ':' and will be used as "PATH" environment variable.

Associations

`installed_at`: associates with Tuxedo Home target.

Tuxedo tlisten

Description

This target corresponds to a tuxedo tlisten process.

Properties

Name	Display Label	Characters	Description
Name	Name	Visible Editable	[nlsaddr]/tlisten

Host	Host	Editable(*)	The listening IP address or hostname of the 'tlisten' process associated with the Tuxedo Machine.
Port	Port	Editable(*)	The listening port of the JMX RMI connector embedded in 'tlisten' process associated with the Tuxedo Machine.
device	device	Visible, CMD Option	Full pathname of the network device.
uid	uid	Visible, CMD Option	
sec_principal_name	sec_principal_name	Visible CMD Option	
sec_principal_location	sec_principal_location	Visible, CMD Option	
sec_principal_passvar	sec_principal_passvar	Visible, CMD Option	
zbits	zbits	Visible, CMD Option	
Zbits	Zbits	Visible, CMD Option	
nlsaddr	nlsaddr	Visible, CMD Option	
User Name	Tuxedo User	Visible	Use this Tuxedo User to get metric data
User Password	Tuxedo User Password	Visible	Use this Tuxedo User to get metric data
Application Password	Tuxedo Application Password	Visible	Use this Tuxedo User to get metric data

useSSL	Use SSL	Visible	Use SSL or not
tlisten Password	Tuxedo tlisten Password	Visible	Auto discovery uses this to discovery

Association

`installed_at`: associates with Tuxedo Home target where application runs.

Availability Metrics

Metric Name		Response	
Metric Type		TABLE	
Metric Display		Response	
Collection Interval		5 minutes	
Key Column(s)		None	
Column Name	**Column Type**	**Display Label**	**Note**
Timing	NUMBER	Elapsed Time	
Status	NUMBER	Status	0 - Inactive 1 – Active, tlisten will always return 1 If status>=1, then the target is available.

Tuxedo Domain

Description

Tuxedo Domain is a system target type.

Properties

Name	Display Label	Characters	Description
Name	Name	Visible Editable	`[DOMAINID]:[PMID of the master machine]: [PMID of the backup machine]:[IPCKEY]` **Note:** When making swap operation, the name is not changed.
Host	Host	Editable(*)	The listening IP address or hostname of the 'tlisten' process associates with the master Tuxedo Machine of the domain.
Port	Port	Editable(*)	The listening port of the JMX RMI connector embedded in 'tlisten' process associates with the master Tuxedo Machine of the domain.
DOMAINID	DOMAINID	Visible, Editable(*), UBB Parameter,	`DOMAINID` parameter in `TUXCONFIG`
IPCKEY	IPCKEY	Visible, Editable(*), UBB Parameter,	`IPCKEY` parameter in `TUXCONFIG`
MASTER	MASTER	Visible, UBB Parameter	Specifies the LMIDs list of master Tuxedo Machines
MODEL	MODEL	Visible, UBB Parameter	`MODEL` parameter in `TUXCONFIG`
SECURITY	SECURITY	Visible, UBB Parameter	`SECURITY` parameter in `TUXCONFIG`
OPTIONS	OPTIONS	Visible, UBB Parameter	`OPTIONS` parameter in `TUXCONFIG`

RESB	Resource Broker Enabled	Visible	This property is for internal use only.
SNMP_PORT	SNMP Receive Port	Editable	Required for Tuxedo Event collection. Domain target uses this port to receive tuxedo event trap from tuxedo event agent.
User Name	Tuxedo User	Visible	Use this Tuxedo User to get metric data
User Password	Tuxedo User Password	Visible	Use this Tuxedo User to get metric data
Application Password	Tuxedo Application Password	Visible	Use this Tuxedo User to get metric data
useSSL	Use SSL	Visible	Use SSL or not

Association

`App_composite_contains`: Tuxedo Machine target

Availability Metrics

Metric Name		Response	
Metric Type		TABLE	
Metric Display		Response	
Collection Interval		5 minutes	
Key Column(s)		None	
Column Name	**Column type**	**Display Label**	**Note**

Timing	NUMBER	Elapsed Time	
Status	NUMBER	Status	0: Inactive: When all Tuxedo Machines under this domain are inactive.
			1: Partly active: When at least a Tuxedo Machine under this domain is inactive.
			2: Active: When all Tuxedo Machines under this domain are active.
			If status>=1, the target is available.

Client Number Metrics

Metric Name	CLIENT_CONNECTION_NUMBER
Metric Type	TABLE, Repository side
Metric Display	Client Connection Number
Collection Interval	15 minutes
Key Column(s)	None

Column Name	Column Type	Display Label	Note
NATIVE_CLIENT_N UMBER	NUMBER	Native Clients	The number of native clients that are joining the Tuxedo domain. Not NULL Threshold: >

WORKSTATION_CLIENT_ NUMBER	NUMBER	Workstation Clients	The number of workstation clients that are connecting to the Tuxedo domain target. Not NULL Threshold: >
JOLT_CLIENT_NUMBER	NUMBER	Jolt Clients	The number of JOLT clients that are connecting to the Tuxedo domain. Not NULL Threshold: >
CLIENT_NUMBER	NUMBER	Clients	The total number of clients that are joining or connecting to the Tuxedo domain. Not NULL Value: `NATIVE_CLIENT_NUMBER+ WORKSTATION_CLIENT_ NUMBER+ JOLT_CLIENT_NUMBER` Threshold: >

Domain Metrics

Metric Name	`DOMAIN_OPERATION_STATISTICS`
Metric Type	TABLE, Repository side

Metric Display	Domian Operation Statistics
Collection Interval	15 minutes
Key Column(s)	None

Column Name	Column Type	Display Label	Note
TPCONNECT _NUMBER	NUMBER	tpconnect Per Minute	The invoking times (per minute) of `tpconnect` method in Tuxedo domain during the interval. Not NULL Threshold : >
TPDEQUEUE_NUMB ER	NUMBER	tpdequeue Per Minute	The invoking times (per minute) of `tpdequeue` method in Tuxedo domain during the interval. Not NULL Threshold : >
TPENQUEUE_NUMB ER	NUMBER	tpenqueue Per Minute	The invoking times (per minute) of `tpenqueue` method in Tuxedo domain during the interval. Not NULL Threshold : >

TPPOST_NUMBER	NUMBER	tppost Per Minute	The invoking times (per minute) of `tppost` method in Tuxedo domain during the interval.
			Not NULL
			Threshold:
			>
TPCALL_NUMBER	NUMBER	tpcall &tpacall Per Minute	The invoking times (per minute) of `tpcall` method in Tuxedo domain during the interval.
			Not NULL
			Threshold:
			>
TPSUBSCRIBE_NUMBER	NUMBER	tpsubscribe Per Minute	The invoking times (per minute) of `tpsubscribe` method in Tuxedo domain during the interval.
			Not NULL
			Threshold:
			>
INITIATED_TRANSACTION_NUMBER	NUMBER	Initiated Transactions Per Minute	The number of XA transactions initiated (per minute) in Tuxedo domain during the interval.
			Not NULL
			Threshold:
			>

ABORTED_TRANSACTION_NUMBER	NUMBER	Aborted Transactions Per Minute	The number of XA transactions aborted (per minute) in Tuxedo domain during the interval. Not NULL Threshold: >
COMMITTED_TRANSACTION_NUMBER	NUMBER	Committed Transactions Per Minute	The number of XA transactions committed (per minute) in Tuxedo domain during the interval. Not NULL Threshold: >
COMPLETE_TRANSACTION_NUMBER	NUMBER	Completed Transactions Per Minute	The number of XA transactions aborted or committed (per minute) in Tuxedo domain during the interval. Not NULL Value: `COMMITTED_ TRANSACTION_NUMB ER+ ABORTED_ TRANSACTION_NUMB ER` Threshold: >

REQUEST_NUMBER	NUMBER	Requests Per Minute	The invoking times (per minute) of `tpcall`, `tpacall` and `tpconnect` method in Tuxedo domain during the interval.
			Internal system calls are counted as well.
			Not NULL
			Value:
			`TPCONNECT _NUMBER+ TPCALL_NUMBER`
COMPLETED_WOR KLOAD	NUMBER	Completed Workload Per Minute	The work load (per minute) completed in Tuxedo domain during the interval.
			Not NULL
			Threshold:
			>

Service Metrics

This metrics is the repository side metrics, which is aggregated from all Tuxedo Server targets under the Tuxedo Domain in terms of service name.

Metric Name	SERVICE_STATISTICS
Metric Type	TABLE, Repository Side
Metric Display	Service Statistics
Collection interval	15 minutes
Key Column(s)	SERVICE_NAME
Column Name	**Column Type**	**Display Label**	**Note**

SERVICE_NAME	STRING	Name	Service name.
MESSAGE_SIZE	NUMBER	Message Bytes Per Minute	The size of all request messages in bytes (per minute) aggregated by the service name. The value is NULL if no request is served during the interval. Threshold: >
EXECUTION_TIME	NUMBER	Average Execution Time (microsecond)	The average execution time in microsecond aggregated by the service name. The value is NULL if no request is served during the interval. Threshold: >
CPU_TIME	NUMBER	Average CPU Time (microsecond)	The average CPU occupancy time in microsecond aggregated by the service name. The value is NULL if no request is served during the interval. Threshold: >

SUCCESS_NUMBER	NUMBER	Successes Per Minute	The successful request number per minute aggregated by the service name.
			Not NULL
			Threshold:
			>
SYSTEM_FAILURE_ NUMBER	NUMBER	System Failures Per Minute	The request number of system failure per minute (tperrno is not TPESVCFAIL) aggregated by the service name.
			Not NULL
			Threshold:
			>

USER_FAILURE_NUMBER	NUMBER	User Failures Per Minute	The request number of user failure per minute (`tperrno` is `TPESVCFAIL`) aggregated by the service name.
			Not NULL
			Threshold:
			>
REQUEST_NUMBER	NUMBER	Requests Per Minute	The request number per minute aggregated by the service name.
			Not NULL
			Value:
			SUCCESS_NUMBER + SYSTEM_FAILURE_NUMBER+ USER_FAILURE_NUMBER
			Threshold:
			>

Tuxedo Machine

Description

This target corresponds to an entry defined in the `MACHINES` section of the `TUXCONFIG` file of monitored Tuxedo domain. Tuxedo Machine is a system target type.

Properties

Name	Display Label	Characters	Description
Name	Name	Visible Editable	[Domain Name]/[LMID]

Host	Host	Editable(*)	Listening IP address or hostname of the tlisten process associated with the Tuxedo Machine.
Port	Port	Editable(*)	Listening port of the JMX RMI connector embedded in tlisten process associated with the Tuxedo Machine.
DOMAINID	DOMAINID	Editable(*), UBB Parameter	
IPCKEY	IPCKEY	Editable(*), UBB Parameter	
PMID	PMID	Visible UBB Parameter	Physical machine ID
LMID	LMID	Visible Editable(*), UBB Parameter	Logic machine name
APPDIR	APPDIR	Visible UBB Parameter	
ENVFILE	ENVFILE	Visible UBB Parameter	
User Name	Tuxedo User	Visible	Use this Tuxedo User to get metric data
User Password	Tuxedo User Password	Visible	Use this Tuxedo User to get metric data
Application Password	Tuxedo Application Password	Visible	Use this Tuxedo User to get metric data
useSSL	Use SSL	Visible	Use SSL or not

Associations

- `installed_at`: associates with Tuxedo Home target where the application runs.

- `installed_at`: associates with Tuxedo Application Home target if the Tuxedo machines are deployed through Tuxedo add-on.

- `App_composite_contains`: Tuxedo Group.

- `App_composite_contains`: Tuxedo Bridge.

- `managed_by`: Tuxedo tlisten.

Availability Metrics

Metric Name		Response	
Metric Type		TABLE	
Metric Display		Response	
Collection Interval		5 minutes	
Key Column(s)		None	
Column Name	**Column Type**	**Display Label**	**Note**
Timing	NUMBER	Elapsed Time	
Status	NUMBER	Status	0: Inactive, when BBL process in this Tuxedo Machine is not running.
			1: Active, when BBL process in this Tuxedo Machine is running.
			If status>=1, the target is available.

Client Number Metrics

Metric Name	CLIENT_CONNECTION_NUMBER
Metric Type	TABLE
Metric Display	Client Connections
Collection Interval	15 minutes
Key Column(s)	None

Column Name	Column Type	Display Label	Note
NATIVE_CLIENT_NUMBER	NUMBER	Native Clients	The number of native clients that are joining the Tuxedo machine. Not NULL Threshold: >
WORKSTATION_CLIENT_NUMBER	NUMBER	Workstation Clients	The number of workstation clients that are connecting to the Tuxedo machine. Not NULL Threshold: >

JOLT_CLIENT_NUM BER	NUMBER	Jolt Clients	The number of JOLT clients that are connecting to the Tuxedo machine. Not NULL Threshold: >
CLIENT_NUMBER	NUMBER	Clients	The total number of clients that are joining or connecting to the Tuxedo machine. Not NULL Value: `NATIVE_CLIENT_NU MBER+ WORKSTATION_CLIE NT_ NUMBER+ JOLT_CLIENT_NUMB ER` Threshold: >

Machine Metrics

Metric Name		MACHINE_OPERATION_STATISTICS	
Metric Type		TABLE	
Metric Display		Machine Operation Statistics	
Collection Interval		15 minutes	
Key Column(s)		None	
Column Name	**Column Type**	**Display Label**	**Note**

TPCONNECT_NUMBER	NUMBER	tpconnect Per Minute	The invoking times (per minute) of `tpconnect` method in Tuxedo machine during the interval.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>
TPDEQUEUE_NUMBER	NUMBER	tpdequeue Per Minute	The invoking times (per minute) of `tpdequeue` method in Tuxedo machine during the interval.
			interval.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>

TPENQUEUE_NUMBER	NUMBER	tpenqueue Per Minute	The invoking times (per minute) of `tpenqueue` method in Tuxedo machine during the interval.
			interval.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>
TPPOST_NUMBER	NUMBER	tppost Per Minute	The invoking times (per minute) of `tppost` method in Tuxedo machine during the interval.
			interval.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>

TPCALL_NUMBER	NUMBER	tpcall & tpacall Per Minute	The invoking times (per minute) of `tpcall` method in Tuxedo machine during the interval.
			interval.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>
TPSUBSCRIBE_NU MBER	NUMBER	tpsubscribe Per Minute	The invoking times (per minute) of `tpsubscribe` method in Tuxedo machine during the interval.
			interval.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>

INITIATED_TRANS ACTION_NUMBER	NUMBER	Initiated Transactions Per Minute	The number of XA transactions initiated (per minute) in Tuxedo machine during the interval.
			interval.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>
COMMITTED_ TRANSACTION_NU MBER	NUMBER	Committed Transactions Per Minute	The number of XA transactions committed (per minute) in Tuxedo machine during the interval.
			interval.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>

ABORTED_ TRANSACTION_NU MBER	NUMBER	Aborted Transactions Per Minute	The number of XA transactions aborted (per minute) in Tuxedo machine during the interval.
			interval.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>
COMPLETE_TRANS ACTION_NUMBER	NUMBER	Completed Transactions Per Minute	The number of XA transactions aborted or committed (per minute) in Tuxedo machine during the interval.
			interval.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Value:
			`COMMITTED_ TRANSACTION_NUMB ER+ ABORTED_ TRANSACTION_NUMB ER`
			Threshold:
			>

REQUEST_NUMBER	NUMBER	Requests Per Minute	The invoking times (per minute) of `tpcall`, `tpacall` and `tpconnect` method in Tuxedo machine during the interval.
			interval.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Value:
			`TPCONNECT_NUMBER+ TPCALL_NUMBER`
			Threshold:
			>
COMPLETED_WOR KLOAD	NUMBER	Completed Workload Per Minute	The work load (per minute) completed in Tuxedo machine during the interval.
			interval.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>

Service Metrics

This metrics is repository side metrics, which is aggregated from all Tuxedo Server targets under the Tuxedo Machine in terms of service name.

Metric Name		SERVICE_STATISTICS	
Metric Type		TABLE, Repository Side	
Metric Display		Service Statistics c	
Collection interval		15 minutes	
Key Column(s)		SERVICE_NAME	
Column Name	**Column Type**	**Display Label**	**NOTE**
SERVICE_NAME	STRING	Name	Service name.
MESSAGE_SIZE	NUMBER	Message Bytes Per Minute	The size of all request messages in bytes (per minute) aggregated by the service name. The value will be NULL if no request is served during the interval. Threshold: >
EXECUTION_TIME	NUMBER	Average Execution Time (microsecond)	The average execution time in microsecond aggregated by the service name. The value will be NULL if no request is served during the interval. Threshold: >

CPU_TIME	NUMBER	Average CPU Time (microsecond)	The average CPU occupancy time in microsecond aggregated by the service name.
			The value will be NULL if no request is served during the interval.
			Threshold:
			>
SUCCESS_NUMBER	NUMBER	Successes Per Minute	The successful request number per minute aggregated by the service name.
			Not NULL
			Threshold:
			>
SYSTEM_FAILURE_ NUMBER	NUMBER	System Failures Per Minute	The request number of system failure per minute (`tperrno` is not `TPESVCFAIL`) aggregated by the service name.
			Not NULL
			Threshold:
			>

USER_FAILURE_NU MBER	NUMBER	User Failures Per Minute	The request number of user failure per minute (`tperrno` is `TPESVCFAIL`) aggregated by the service name. Not NULL Threshold: `>`
REQUEST_NUMBER	NUMBER	Requests Per Minute	The request number per minute aggregated by the service name. Not NULL Value: `SUCCESS_NUMBER+ SYSTEM_FAILURE_N UMBER+ USER_FAILURE_NUM BER` Threshold: `>`

Tuxedo Group

Description

This target is a repository side target with system target type, which corresponds to an entry defined in the GROUPS section of the TUXCONFIG file of monitored Tuxedo domain.

Properties

Name	Display Label	Characters	Description
Name	Name	Visible Editable	`[Domain Name]/[MasterLMID]/[SRVGRP]` **Note:** After group migration, the group with original master LMID (in name) is not deleted.
Host	Host	Editable(*)	Listening IP address or hostname of the tlisten process associated with the Tuxedo Machine.
Port	Port	Editable(*)	Listening port of the JMX RMI connector embedded in tlisten process associated with the Tuxedo Machine.
DOMAINID	DOMAINID	Editable(*), UBB Parameter	
IPCKEY	IPCKEY	Editable(*), UBB Parameter	
LMID	LMID	Visible UBB Parameter	The current LMID, this property is especially necessary for a group related to two Tuxedo Machines.
SRVGRP	SRVGRP	Visible Editable(*), UBB Parameter	Group name.
GRPNO	GRPNO	Visible Editable UBB Parameter	`GRPNO` parameter for the group.
CICS_Included	CICS_Included		Indicates whether this group includes ART JES servers. Values: Yes No

Migrated	Is Migrated Target		Indicates whether this target has been migrated off.
User Name	Tuxedo User	Visible	Use this Tuxedo User to get metric data
User Password	Tuxedo User Password	Visible	Use this Tuxedo User to get metric data
Application Password	Tuxedo Application Password	Visible	Use this Tuxedo User to get metric data
useSSL	Use SSL	Visible	Use SSL or not

Associations

`App_composite_contains`: Tuxedo Server and all Tuxedo System server except Tuxedo Bridge targets.

Availability Metrics

Metric Name		Response	
Metric Type		TABLE	
Metric Display		Response	
Collection Interval		5 minutes	
Key Column(s)		None	
Column Name	**Column type**	**Display Label**	**Note**

Timing	NUMBER	Elapsed Time	
Status	NUMBER	Status	0: Inactive, when none of process in this Tuxedo Machine is running.
			1: Active, when any processes in this Tuxedo Machine are running.
			If status>=1, then the target is available.

Service Metrics

This metrics is a repository side metrics, which is aggregated from all Tuxedo Server targets under the Tuxedo Group in terms of service name.

Metric Name	SERVICE_STATISTICS		
Metric Type	TABLE, Repository Side		
Metric Display	Service Statistics		
Collection interval	15 minutes		
Key Column(s)	SERVICE_NAME		
Column Name	**Column Type**	**Display Label**	**Note**
SERVICE_NAME	STRING	Name	Service name.
MESSAGE_SIZE	NUMBER	Message Bytes Per Minute	The size of all request messages in bytes (per minute) aggregated by the service name.
			The value is NULL if no request is served during the interval.
			Threshold:
			>

EXECUTION_TIME	NUMBER	Average Execution Time (microsecond)	The average execution time in microsecond aggregated by the service name.
			The value is NULL if no request is served during the interval.
			Threshold:
			>
CPU_TIME	NUMBER	Average CPU Time (microsecond)	The average CPU occupancy time in microsecond aggregated by the service name.
			The value is NULL if no request is served during the interval.
			Threshold:
			>
SUCCESS_NUMBER	NUMBER	Successes Per Minute	The successful request number per minute aggregated by the service name.
			Not NULL
			Threshold:
			>
SYSTEM_FAILURE_ NUMBER	NUMBER	System Failures Per Minute	The request number of system failure per minute (tperrno is not TPESVCFAIL) aggregated by the service name.
			Not NULL
			Threshold:
			>

USER_FAILURE_NU MBER	NUMBER	User Failures Per Minute	The request number of user failure per minute (`tperrno` is `TPESVCFAIL`) aggregated by the service name. Not NULL Threshold: >
REQUEST_NUMBER	NUMBER	Requests Per Minute	The request number per minute aggregated by the service name. Not NULL Value: `SUCCESS_NUMBER+ SYSTEM_FAILURE_N UMBER+ USER_FAILURE_NUM BER` Threshold: >

Tuxedo Server

Description

This target corresponds to an entry defined in the `SERVERS` section of the `TUXCONFIG` file of monitored Tuxedo domain.

Properties

Name	Display Label	Characters	Description
Name	Name	Visible Editable	[Group Name]/[AOUT]:[SRVID]

Host	Host	Editable(*)	The listening IP address or hostname of the `tlisten` process associated with the Tuxedo Machine.
Port	Port	Editable(*)	The listening port of the JMX RMI connector embedded in `tlisten` process associated with the Tuxedo Machine.
DOMAINID	DOMAINID	Editable(*), UBB Parameter	
IPCKEY	IPCKEY	Editable(*), UBB Parameter	
SRVGRP	SRVGRP	Editable(*), Visible UBB Parameter	Group name
GRPNO	GRPNO	UBB Parameter	GRPNO parameter for the group
SRVID	SRVID	Visible Editable(*), UBB Parameter	SRVID parameter for the server entry defined in SERVERS section of `UBBCONFIG(5)`
AOUT	AOUT	Visible Editable, UBB Parameter	process name
User Name	Tuxedo User	Visible	Use this Tuxedo User to get metric data.
User Password	Tuxedo User Password	Visible	Use this Tuxedo User to get metric data.
Application Password	Tuxedo Application Password	Visible	Use this Tuxedo User to get metric data.
Migrated	Is Migrated Target		Indicates whether this target has been migrated off.
useSSL	Use SSL	Visible	Use SSL or not

Availability Metrics

Metric Name	Response		
Metric Type	TABLE		
Metric Display	Response		
Collection Interval	5 minutes		
Key Column(s)	None		
Column Name	**Column Type**	**Display Label**	**Note**
Timing	NUMBER	Elapsed Time	
Status	NUMBER	Status	• 0:Inactive, when no process instance is running • 1:Active, if at least one process instance is running If status>=1, then the target is available.

Service Metrics

Metric Name	SERVICE_STATISTICS		
Metric Type	TABLE		
Metric Display	Service Statistics		
Collection interval	15 minutes		
Key Column(s)	SERVICE_NAME		
Column Name	**Column type**	**Display Label**	**Note**
SERVICE_NAME	STRING	Name	Service name.

MESSAGE_SIZE	NUMBER	Message Bytes Per Minute	The size of all request messages in bytes (per minute) aggregated by the service name.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>
EXECUTION_TIME	NUMBER	Average Execution Time (microsecond)	The average execution time in microsecond aggregated by the service name.
			The value is NULL if no request is served during the interval.
			Threshold:
			>
CPU_TIME	NUMBER	Average CPU Time (microsecond)	The average CPU occupancy time in microsecond aggregated by the service name.
			The value is NULL if no request is served during the interval.
			Threshold:
			>

SUCCESS_NUMBER	NUMBER	Successes Per Minute	The successful request number per minute aggregated by the service name.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>
SYSTEM_FAILURE_ NUMBER	NUMBER	System Failures Per Minute	The request number of system failure per minute (`tperrno` is not `TPESVCFAIL`) aggregated by the service name.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>

USER_FAILURE_NU MBER	NUMBER	User Failures Per Minute	The request number of user failure per minute (`tperrno` is `TPESVCFAIL`) aggregated by the service name.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>
REQUEST_NUMBER	NUMBER	Requests Per Minute	The request number per minute aggregated by the service name.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Value:
			`SUCCESS_NUMBER+ SYSTEM_FAILURE_N UMBER+ USER_FAILURE_NUM BER`
			Threshold:
			>

IPC Queue Metrics

Metric Name	IPC_QUEUE_STATISTICS
Metric Type	TABLE
Metric Display	IPC Queue Statistics
Collection Interval	15 minutes
Key Column(s)	IPC_QUEUE_NAME, SERVER_ID

Column Name	Column Type	Display Label	Note
IPC_QUEUE_NAME	STRING	Name	Tuxedo request IPC queue name.
SERVER_ID	STRING	Server ID	Tuxedo server ID. For MSSQ server, only one queue is created no matter how many server instances are running and the SRVID parameter is used.
QUEUE_DEPTH	NUMBER	Queue Depth	The IPC queue length. Not NULL Threshold: >

Server Metrics

Metric Name	SERVER_STATISTICS
Metric Type	TABLE
Metric Display	Server Statistics
Collection Interval	15 minutes
Key Column(s)	None

Column Name	Column Type	Display Label	Note
INSTANCE_NUMBER	NUMBER	Instances	The active server process number of the Tuxedo server target. Not NULL Threshold: >
DISPATCH_THREAD_NUMBER	NUMBER	Dispatch Threads	The total dispatch thread number in all active server processes of the Tuxedo server target. Not NULL A snapshot of total dispatch thread number of all server instances. Threshold: >
TPCONNECT_NUMBER	NUMBER	tpconnect Per Minute	The invoking times (per minute) of tpconnect method in Tuxedo server during the interval. This value will become to 0 at the earliest collection after the collection interval or target properties are changed. Not NULL Threshold: >

TPDEQUEUE_NUMB ER	NUMBER	tpdequeue Per Minute	The invoking times (per minute) of `tpdequeue` method in Tuxedo server during the interval.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>
TPENQUEUE_NUMB ER	NUMBER	tpenqueue Per Minute	The invoking times (per minute) of `tpenqueue` method in Tuxedo server during the interval.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>

TPPOST_NUMBER	NUMBER	tppost Per Minute	The invoking times (per minute) of `tppost` method in Tuxedo server during the interval.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>
TPCALL_NUMBER	NUMBER	tpcall & tpacall Per Minute	The invoking times (per minute) of `tpcall` method in Tuxedo server during the interval.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>

TPSUBSCRIBE_NU MBER	NUMBER	tpsubscribe Per Minute	The invoking times (per minute) of `tpsubscribe` method in Tuxedo server during the interval.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold :
			>
INITIATED_TRANS ACTION_NUMBER	NUMBER	Initiated Transactions Per Minute	The number of XA transactions initiated (per minute) in Tuxedo server during the interval.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold :
			>

ABORTED_ TRANSACTION_NU MBER	NUMBER	Aborted Transactions Per Minute	The number of XA transactions aborted (per minute) in Tuxedo server during the interval.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>
COMMITTED_ TRANSACTION_NU MBER	NUMBER	Committed Transactions Per Minute	The number of XA transactions committed (per minute) in Tuxedo server during the interval.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>

REQUEST_NUMBER	NUMBER	Requests Per Minute	The invoking times (per minute) of `tpcall`, `tpacall` and `tpconnect` method in Tuxedo server during the interval.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Value:
			`TPCONNECT _NUMBER+ TPCALL_NUMBER`
			Threshold:
			>
COMPLETED_WOR KLOAD	NUMBER	Completed Workload Per Minute	The work load (per minute) completed in Tuxedo server during the interval.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>

Service Aggregated Metrics

Metric Name	SERVER_AGGREGATED_STATISTICS
Metric Type	TABLE
Metric Display	Server Aggregated Statistics
Collection Interval	15 minutes
Key Column(s)	None

Column Name	Column Type	Display Label	Note
SERVICE _EXECUTION_TIME	NUMBER	Average Service Execution Time(microsecond)	The average service execution time in microsecond of all services advertised by the Tuxedo server target. The value is NULL if no request is served during the interval. Threshold: >
SERVICE _CPU_TIME	NUMBER	Average Service CPU Time (microsecond)	The average CPU occupancy time in microsecond of all services advertised by the Tuxedo server target. The value is NULL if no request is served during the interval. Threshold: >

SERVICE _SUCCESS_NUMBE R	NUMBER	Successes Per Minute	The number of successful requests (per minute) on the Tuxedo Server target.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>
SERVICE _SYSTEM_FAILURE _NUMBER	NUMBER	System Failures Per Minute	The number of system failure service requests per minute (`tperrno` is not `TPESVCFAIL`) on the Tuxedo Server target.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>

SERVICE _USER_FAILURE_N UMBER	NUMBER	User Failures Per Minute	The number of user failure service requests per minute (`tperrno` is `TPESVCFAIL`) on the Tuxedo Server target.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>

REQUEST_NUMBER	NUMBER	Requests Per Minute	The number of service requests (per minute) on the Tuxedo Server target.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			`SUCCESS_NUMBER+ SYSTEM_FAILURE_N UMBER+ USER_FAILURE_NUM BER`
			Threshold:
			>
SERVICE_SUCCESS _RATIO	NUMBER	Success Ratio(%)	The successful ratio of service requests on the Tuxedo server target.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			The value is NULL if no request is served during the interval.
			Threshold:
			<

Tuxedo System Server

Description

This target corresponds to an entry defined in the `SERVERS` section of the `TUXCONFIG` file of monitored Tuxedo domain.

The following system servers contain the Tuxedo System Server target type.

- ARTJESADM
- ARTJESINITIATOR
- ARTJESCONV
- ARTJESPURGE
- AUTHSVR
- BBL
- DBBL
- DMADM
- GAUTHSVR
- GWADM
- JREPSVR
- KAUTHSVR
- LAUTHSVR
- LMS
- TMMETADATA
- TMQFORWARD
- TMQUEUE

Properties

Name	Display Label	Characters	Description
Name	Name	Visible Editable	`[Group Name]/[AOUT]:[ SRVID]`
Host	Host	Editable(*)	The listening IP address or hostname of the `tlisten` process associated with the Tuxedo Machine.
Port	Port	Editable(*)	The listening port of the JMX RMI connector embedded in `tlisten` process associated with the Tuxedo Machine.

DOMAINID	DOMAINID	Editable(*), UBB Parameter	
IPCKEY	IPCKEY	Editable(*), UBB Parameter	
SRVGRP	SRVGRP	Visible Editable(*), UBB Parameter	Group name
GRPNO	GRPNO	UBB Parameter	GRPNO parameter for the group.
SRVID	SRVID	Visible Editable(*), UBB Parameter	SRVID parameter for the server entry defined in SERVERS section of UBBCONFIG(5).
AOUT	AOUT	Visible Editable UBB Parameter	Process name
User Name	Tuxedo User	Visible	Use this Tuxedo User to get metric data.
User Password	Tuxedo User Password	Visible	Use this Tuxedo User to get metric data.
Application Password	Tuxedo Application Password	Visible	Use this Tuxedo User to get metric data.
Migrated	Is Migrated Target		Indicates whether this target has been migrated off.
useSSL	Use SSL	Visible	Use SSL or not

Availability Metrics

Metric Name	Response
Metric Type	TABLE

Metric Display		Response	
Collection Interval		5 minutes	
Key Column(s)		None	
Column Name	**Column Type**	**Display Label**	**Note**
Timing	NUMBER	Elapsed Time	
Status	NUMBER	Status	0:Inactive, when no process instance is running
			1:Active, if at least one process instance is running
			If status>=1, then the target is available.

Instance Number Metrics

Metric Name		SYSTEM_SERVER_NUMBER	
Metric Type		TABLE	
Metric Display		System Server Metrics	
Collection Interval		15 minutes	
Key Column(s)		None	
Column Name	**Column Type**	**Display Label**	**Note**
INSTANCE_NUMBE R	NUMBER	Instances	The active server processes number of the target.
			Not NULL
			Threshold:
			>

Tuxedo Bridge

Description

This target corresponds to a Tuxedo BRIDGE process.

Properties

Name	Display Label	Characters	Description
Name	Name	Visible Editable	`[Domain Name]/ [LMID]/BRIDGE`
Host	Host	Editable(*)	The listening IP address or hostname of the `tlisten` process associated with the Tuxedo Machine.
Port	Port	Editable(*)	The listening port of the JMX RMI connector embedded in tlisten process associated with the Tuxedo Machine.
DOMAINI D	DOMAINID	Editable(*), UBB Parameter	
IPCKEY	IPCKEY	Editable(*), UBB Parameter	
LMID	LMID	Editable(*), UBB Parameter	Logical machine of the Tuxedo Machine where the bridge is running.
NADDR	NADDR	Visible UBB Parameter	Specifies the complete network listening address for the Bridge process.
User Name	Tuxedo User	Visible	Use this Tuxedo User to get metric data.
User Password	Tuxedo User Password	Visible	Used to get metric data.
Applicatio n Password	Tuxedo Application Password	Visible	Used to get metric data.
useSSL	Use SSL	Visible	Use SSL or not

Associations

`communicates_to`: Peers of Tuxedo Bridge on other Tuxedo Machine.

Availability Metrics

Metric Name		Response	
Metric Type		TABLE	
Metric Display		Response	
Collection Interval		5 minutes	
Key Column(s)		None	
`instance_number`	**Instance Number**	**Display Label**	**Note**
Timing	NUMBER	Elapsed Time	
Status	NUMBER	Status	0:Inactive, when the process is running
			1:Active, if the process instance is running
			If status>=1, then the target is available.

IPC Queue Metrics

Metric Name	BRIDGE_QUEUE_STATISTICS
Metric Type	TABLE
Metric Display	Bridge Queue Statistics
Collection Interval	15 minutess
Key Column(s)	None

Column Name	Column Type	Display Label	Note
IPCQUEUE_DEPTH	NUMBER	Depth of IPC Queue	The IPC queue length. Not NULL Threshold: >

Remote Link Metrics

Metric Name	REMOTE_LINK_STATISTICS
Metric Type	TABLE
Metric Display	Remote Link Statistics
Collection Interval	15 minutes
Key Column(s)	LMID

Column Name	Column Type	Display Label	NOTE
LMID	STRING	LMID	LMID of the remote Tuxedo machine
INBOUND_MESSAGE_NUMBER	NUMBER	Inbound Network Messages Per Minute	The number of messages transferred from the remote Tuxedo machine per minute. This value will become to 0 at the earliest collection after the collection interval or target properties are changed. Not NULL Threshold: >

OUTBOUND_MESSA GE_NUMBER	NUMBER	Outbound Network Messages Per Minute	The number of messages transferred to the remote Tuxedo machine per minute.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>
INBOUND_NETWOR K_MESSAGE_SIZE	NUMBER	Inbound Network Messages Bytes Per Minute	The message size in byte transferred from the remote Tuxedo machine per minute.
			Not NULL
			Threshold:
			>
OUTBOUND_NETW ORK_MESSAGE_SIZ E	NUMBER	Outbound Network Messages Bytes Per Minute	The message size in byte transferred to the remote Tuxedo machine per minute.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>

PENDING_NETWOR K_MESSAGE_NUMB ER	NUMBER	Pending Network Messages	The number of messages that are pending in the network to the remote Tuxedo machine. Not NULL Threshold: >
PENDING_NETWOR K_MESSAGE_SIZE	NUMBER	Pending Network Messages Bytes	The total message size in byte that are pending in the network to the remote Tuxedo machine. Not NULL Threshold: >

Tuxedo TMS

Description

This target corresponds to a Tuxedo global transaction manager server entry defined in
`TUXCONFIG`.

Properties

Name	Display Label	Characters	Description
Name	Name	Visible Editable	For TMS defined in GROUPS section the name is `[Group Name]/[AOUT]`. For TMS defined in RMS section, the name is `[Group Name]/[AOUT]:[RMSNAME]`
RMSName	RMS Name	Visible UBB Parameter	For `TMS` defined in `RMS` section, it means Resource manager name. For TMS defined in GROUPS section the name, it will be empty.

RMID	RMID	Visible UBB Parameter	For TMS defined in RMS section, it means Resource manager ID. For TMS defined in GROUPS section the name, it is empty.
Host	Host	Editable(*)	The listening IP address or hostname of the tlisten process associated with the Tuxedo Machine.
Port	Port	Editable(*)	The listening port of the JMX RMI connector embedded in tlisten process associated with the Tuxedo Machine.
DOMAINID	DOMAINID	Editable(*), UBB Parameter	
IPCKEY	IPCKEY	Editable(*), UBB Parameter	
SRVGRP	SRVGRP	Visible Editable(*), UBB Parameter	Group name
GRPNO	GRPNO	UBB Parameter	GRPNO parameter for the group
AOUT	AOUT	Visible Editable(*), UBB Parameter	Process name
User Name	Tuxedo User	Visible	Use this Tuxedo User to get metric data.
User Password	Tuxedo User Password	Visible	Use this Tuxedo User to get metric data.
Application Password	Tuxedo Application Password	Visible	Use this Tuxedo User to get metric data.
useSSL	Use SSL	Visible	Use SSL or not

Availability Metrics

Metric Name	Response		
Metric Type	TABLE		
Metric Display	Response		
Collection Interval	5 minutes		
Key Column(s)	None		
Column Name	**Column Type**	**Display Label**	**Note**
Timing	NUMBER	Elapsed Time	
Status	NUMBER	Status	0:Inactive, when the process is running
			1:Active, if the process instance is running
			If status>=1, then the target is available.

XA Transaction Metrics

Metric Name	TMS_TRANSACTION_STATISTICS		
Metric Type	TABLE		
Metric Display	TMS Transaction Statistics		
Collection Interval	15 minutes		
Key Column(s)	None		
Column Name	**Column Type**	**Display Label**	**Note**

ACTIVE_INSTANCE _NUMBER	NUMBER	Active Instances	The number of active processes. Not NULL Threshold: >
COMMITTED_ TRANSACTION_NU MBER	NUMBER	Committed XA Transactions Per Minute	The number of XA transactions committed per minute during the interval. This value will become to 0 at the earliest collection after the collection interval or target properties are changed. Not NULL Threshold: >

ABORTED_ TRANSACTION_NU MBER	NUMBER	Aborted XA Transactions Per Minute	The number of XA transactions aborted per minute during the interval.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>
COMPLETE_TRANS ACTION_NUMBER	NUMBER	Complete Transactions Per Minute	The number of XA transactions aborted or committed per minute during the interval.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Value:
			`COMMITTED_ TRANSACTION_NUMB ER+ ABORTED_ TRANSACTION_NUMB ER`
			Threshold:
			>

Tuxedo /T Domain Gateway

Description

This target corresponds to a Tuxedo `GWTDOMAIN` entry defined in `TUXCONFIG`.

Properties

Name	Display Label	Characters	Description
Name	Name	Visible Editable	`[Group Name]/[AOUT]:[ SRVID]`
Host	Host	Editable(*)	The listening IP address or hostname of the `tlisten` process associated with the Tuxedo Machine.
Port	Port	Editable(*)	The listening port of the JMX RMI connector embedded in `tlisten` process associated with the Tuxedo Machine.
DOMAINID	DOMAINID	Editable(*), UBB Parameter	
IPCKEY	IPCKEY	Editable(*), UBB Parameter	
SRVGRP	SRVGRP	Visible Editable(*), UBB Parameter	Group name
GRPNO	GRPNO	UBB Parameter	`GRPNO` parameter for the group
SRVID	SRVID	Visible Editable, UBB Parameter	`SRVID` parameter for the server entry defined in SERVERS section of `UBBCONFIG(5)`
AOUT	AOUT	Visible Editable, UBB Parameter	Process name
GatewayAddress	Gateway Address	Visible	Listening address of the domain gateway
GatewayPort	Gateway Port	Visible	Listening port of the domain gateway

is_migrated_tar get	Is Migrated Target		Indicates this is a migrated target that doesn't exist in Tuxedo side.
User Name	Tuxedo User	Visible	Use this Tuxedo User to get metric data.
User Password	Tuxedo User Password	Visible	Use this Tuxedo User to get metric data.
Application Password	Tuxedo Application Password	Visible	Use this Tuxedo User to get metric data.
Migrated	Is Migrated Target		Indicates whether this target been migrated off.
useSSL	Use SSL	Visible	Use SSL or not

Associations

communicates_to: the Tuxedo /T Domain Gateway peer on other Tuxedo Domain.

Availability Metrics

Metric Name		Response	
Metric Type		TABLE	
Metric Display		Response	
Collection Interval		5 minutes	
Key Column(s)		None	
Column Name	**Column Type**	**Display Label**	**Note**
Timing	NUMBER	Elapsed Time	
Status	NUMBER	Status	0:Inactive, when the process is running
			1:Active, if the process instance is running
			If status>=1, then the target is available.

XA Transaction Metrics

Metric Name	DOMAIN_GATEWAY_TRANSACTION_STATISTICS
Metric Type	TABLE
Metric Display	Domain Gateway Transaction Statistics
Collection Interval	15 minutes
Key Column(s)	None

Column Name	Column Type	Display Label	Note
COMMITTED_TRANSACTION_NUMBER	NUMBER	Committed XA Transactions Per Minute	The number of XA transactions committed per minute during the interval.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>

ABORTED_TRANSA CTION_NUMBER	NUMBER	Aborted XA Transactions Per Minute	The number of XA transactions aborted per minute during the interval.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>
COMPLETE_TRANS ACTION_NUMBER	NUMBER	Complete Transactions Per Minute	The number of XA transactions aborted or committed per minute during the interval.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Value:
			`COMMITTED_ TRANSACTION_NUMB ER+ ABORTED_ TRANSACTION_NUMB ER`
			Threshold:
			>

Remote Link Metrics

Metric Name	REMOTE_LINK_STATISTICS		
Metric Type	TABLE		
Metric Display	Remote Link Statistics		
Collection Interval	15 minutes		
Key Column(s)	REMOTE_DOMAIN_ID		
Column Name	**Column Type**	**Display Label**	**Note**
REMOTE_DOMAIN_ID	STRING	Remote Domain ID	The remote domain ID.
CONNECTION_STATUS	STRING	Connection Status	The connection status to the remote domain.
			TA_STATE filed of T_DM_CONNECTION class, DM_MIB.
			Value:
			{ACT | SUS | INI | INA | UNK}
INBOUND_MESSAGE_NUMBER	NUMBER	Inbound Network Messages Per Minute	The number of messages transferred from the remote Tuxedo domain per minute.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>

OUTBOUND_MESSA GE_NUMBER	NUMBER	Outbound Network Messages Per Minute	The number of messages transferred to the remote Tuxedo domain per minute.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold :
			>
INBOUND _NETWORK_MESSA GE_SIZE	NUMBER	Inbound Network Messages Bytes Per Minute	The message size in byte transferred from the remote Tuxedo domain per minute.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold :
			>

OUTBOUND _NETWORK_MESSA GE_SIZE	NUMBER	Outbound Network Messages Bytes Per Minute	The message size in byte transferred to the remote Tuxedo domain per minute.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>
PENDING_NETWOR K_MESSAGE_NUMB ER	NUMBER	Pending Network Messages	The number of messages that are pending in the network to the remote Tuxedo domain.
			Not NULL
			The number of messages that are pending in the network
			Threshold:
			>

PENDING_NETWOR K_MESSAGE_SIZE	NUMBER	Pending Network Messages Bytes	The total messages size in byte that are pending in the network to the remote Tuxedo domain.
			Not NULL
			Total size (bytes) of messages that are pending in the network
			Threshold:
			>
OUTSTANDING_NE TWORK_REQUEST_ NUMBER	NUMBER	Outstanding Network Requests	The number of requests that are waiting for reply from the remote Tuxedo domain.
			Not NULL
			Threshold:
			>

Tuxedo Web Service Gateway

Description

This target corresponds to a Tuxedo `SALT GWWS` entry defined in `TUXCONFIG`.

Properties

Name	Display Label	Characters	Description
Name	Name	Visible Editable	`[Group Name]/[AOUT]:[ SRVID]`
Host	Host	Editable(*)	The listening IP address or hostname of the `tlisten` process associated with the Tuxedo Machine.

Port	Port	Editable(*)	The listening port of the JMX RMI connector embedded in `tlisten` process associated with the Tuxedo Machine.
DOMAINID	DOMAINID	Editable(*), UBB Parameter	
IPCKEY	IPCKEY	Editable(*), UBB Parameter	
SRVGRP	SRVGRP	Visible Editable(*), UBB Parameter	Group name
GRPNO	GRPNO	UBB Parameter	`GRPNO` parameter for the group.
SRVID	SRVID	Visible Editable(*), UBB Parameter	`SRVID` parameter for the server entry defined in `SERVERS` section of `UBBCONFIG`.
AOUT	AOUT	Visible UBB Parameter	Process name.
User Name	Tuxedo User	Visible	Use this Tuxedo User to get metric data.
User Password	Tuxedo User Password	Visible	Use this Tuxedo User to get metric data.
Application Password	Tuxedo Application Password	Visible	Use this Tuxedo User to get metric data.
Migrated	Is Migrated Target		Indicates whether this target been migrated off.
useSSL	Use SSL	Visible	Use SSL or not

Availability Metrics

Metric Name	Response
Metric Type	TABLE
Metric Display	Response
Collection Interval	5 minutes
Key Column(s)	None

Column Name	Column Type	Display Label	Note
Timing	NUMBER	Elapsed Time	
Status	NUMBER	Status	0:Inactive, when the process is running
			1:Active, if the process instance is running
			If status>=1, then the target is available.

Gateway Metrics

Metric Name	WEBSERVICE_GATEWAY_STATISTICS
Metric Type	TABLE
Metric Display	Web Service Gateway Statistics
Collection Interval	15 minutes
Key Column(s)	None

Column Name	Column Type	Display Label	Note

ACTIVE_THREAD_N UMBER	NUMBER	Active Threads	The number of working threads in the pool.
			Not NULL
			Threshold:
			>
INBOUND_PROCESS _TIME	NUMBER	Average Inbound Process Time (microsecond)	The average response time in microsecond for inbound requests.
			The value is NULL if no request is served during the interval.
			Threshold:
			>
OUTBOUND_PROCE SS_TIME	NUMBER	Average Outbound Process Time (microsecond)	The average response time in microsecond for outbound requests.
			The value is NULL if no request is served during the interval.
			Threshold:
			>
INBOUND_ONEWAY _FAILURE_NUMBER	NUMBER	Inbound One-Way Failures Per Minute	The inbound one-way failure number per minute.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>

INBOUND_ONEWAY _SUCCESS_NUMBE R	NUMBER	Inbound One-Way Successes Per Minute	The inbound one-way success number per minute.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>
INBOUND_ RPC _FAILURE_NUMBER	NUMBER	Inbound RPC Failures Per Minute	The inbound PRC failure number per minute.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>
INBOUND_ RPC _SUCCESS_NUMBE R	NUMBER	Inbound RPC Successes Per Minute	The inbound PRC success number per minute.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>

OUTBOUND_ONEW AY_FAILURE_NUM BER	NUMBER	Outbound One-Way Failures Per Minute	The outbound one-way failure number per minute.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>
OUTBOUND _ONEWAY_SUCCES S_NUMBER	NUMBER	Outbound One-Way Successes Per Minute	The outbound one-way success number per minute.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>
OUTBOUND_RPC _FAILURE_NUMBER	NUMBER	Outbound RPC Failures Per Minute	The outbound RPC failure number per minute.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>

OUTBOUND_RPC_SUCCESS_NUMBER	NUMBER	Outbound RPC Successes Per Minute	The outbound RPC success number per minute.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>
INBOUND_PENDING_REQUEST_NUMBER	NUMBER	Inbound Pending Requests	The number of requests that are waiting for reply from Tuxedo system.
			Not NULL
			Threshold:
			>
OUTBOUND_PENDING_REQUEST_NUMBER	NUMBER	Outbound Pending Requests	The number of requests that are waiting for the reply from outside.
			Not NULL
			Threshold:
			>

Tuxedo Workstation Listener

Description

This target corresponds to a Tuxedo `WSL` entry defined in `TUXCONFIG`.

Properties

Name	Display Label	Characters	Description
Name	Name	Visible Editable	`[Group Name]/[AOUT]:[ SRVID]`
Host	Host	Editable(*)	The listening IP address or hostname of the `tlisten` process associated with the Tuxedo Machine.
Port	Port	Editable(*)	The listening port of the JMX RMI connector embedded in `tlisten` process associated with the Tuxedo Machine.
DOMAINID	DOMAINID	Editable(*), UBB Parameter	
IPCKEY	IPCKEY	Editable(*), UBB Parameter	
SRVGRP	SRVGRP	Visible Editable(*), UBB Parameter	Group name
GRPNO	GRPNO	UBB Parameter	`GRPNO` parameter for the group
SRVID	SRVID	Visible Editable(*), UBB Parameter	`SRVID` parameter for the server entry defined in `SERVERS` section of `UBBCONFIG`.
AOUT	AOUT	Visible UBB Parameter	Process name
User Name	Tuxedo User	Visible	Use this Tuxedo User to get metric data.
User Password	Tuxedo User Password	Visible	Use this Tuxedo User to get metric data.
Application Password	Tuxedo Application Password	Visible	Use this Tuxedo User to get metric data.

Migrated	Is Migrated Target			Indicates whether this target has been migrated off.
useSSL	Use SSL	Visible		Use SSL or not

Availability Metrics

Metric Name	Response
Metric Type	TABLE
Metric Display	Response
Collection Interval	5 minutes
Key Column(s)	None

Column Name	Column Type	Display Label	Note
Timing	NUMBER	Elapsed Time	
Status	NUMBER	Status	0:Inactive, when the process is running 1:Active, if the process instance is running If status>=1, the target is available.

Workstation Listener Metrics

Metric Name	WORKSTATION_LISTENER_STATISTICS
Metric Type	TABLE
Metric Display	Workstation Listener Statistics
Collection Interval	15 minutes
Key Column(s)	None

Column Name	Column Type	Display Label	Note
ACTIVE_HANDLER_ NUMBER	NUMBER	Active Handlers	The number of the active handlers spawned by the listener. Not NULL Threshold: >
CLIENT_NUMBER	NUMBER	Clients	The number of the clients that are connecting with the handlers spawned by the listener. Not NULL Threshold: >

REQUEST_NUMBER	NUMBER	Request Per Minute	The number of the requests that are sent to the handlers spawned by the listener per minute.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>
OUTSTANDING_RE QUEST_NUMBER	NUMBER	Outstanding Requests	The number of the requests that are waiting for the reply on the handlers spawned by the listener.
			Not NULL
			Threshold:
			>

Tuxedo Jolt Listener

Description

This target corresponds to a Tuxedo `JSL` entry defined in `TUXCONFIG`.

Properties

Name	Display Label	Characters	Description
Name	Name	Visible Editable	`[Group Name]/[AOUT]:[` `SRVID]`

Host	Host	Editable(*)	The listening IP address or hostname of the tlisten process associated with the Tuxedo Machine.
Port	Port	Editable(*)	The listening port of the JMX RMI connector embedded in tlisten process associated with the Tuxedo Machine.
DOMAINID	DOMAINID	Editable(*), UBB Parameter	
IPCKEY	IPCKEY	Editable(*), UBB Parameter	
SRVGRP	SRVGRP	Visible Editable(*), UBB Parameter	Group name
GRPNO	GRPNO	UBB Parameter	GRPNO parameter for the group
SRVID	SRVID	Visible Editable(*), UBB Parameter	SRVID parameter for the server entry defined in SERVERS section of UBBCONFIG
AOUT	AOUT	Visible UBB Parameter	Process name
User Name	Tuxedo User	Visible	Use this Tuxedo User to get metric data.
User Password	Tuxedo User Password	Visible	Use this Tuxedo User to get metric data.
Application Password	Tuxedo Application Password	Visible	Use this Tuxedo User to get metric data.
Migrated	Is Migrated Target		Indicates whether this target has been migrated off.
useSSL	Use SSL	Visible	Use SSL or not

Availability Metrics

Metric Name	Response
Metric Type	TABLE
Metric Display	Response
Collection Interval	5 minutes
Key Column(s)	None

Column Name	Column Type	Display Label	Note
Timing	NUMBER	Elapsed Time	
Status	NUMBER	Status	0:Inactive, when the process is running
			1:Active, if the process instance is running
			If status>=1, the target is available.

Jolt Listener Metrics

Metric Name	JOLT_LISTENER_STATISTICS
Metric Type	TABLE
Metric Display	Jolt Listener Statistics
Collection Interval	15 minutes
Key Column(s)	None

Column Name	Column type	Display Label	Note

ACTIVE_HANDLER_ NUMBER	NUMBER	Active Handlers	The number of the active handlers spawned by the listener.
			Not NULL
			Threshold:
			>
CLIENT_NUMBER	NUMBER	Clients	The number of the clients that are connecting with the handlers spawned by the listener.
			Not NULL
			Threshold:
			>
REQUEST_NUMBER	NUMBER	Requests Per Minute	The number of the requests that are sent to the handlers spawned by the listener per minute.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>
OUTSTANDING_RE QUEST_NUMBER	NUMBER	Outstanding Requests	The number of the requests that are waiting for the reply on the handlers spawned by the listener.
			Not NULL
			Threshold:
			>

Tuxedo Event Broker

Description

This target corresponds to a Tuxedo `TMSYSEVT` or `TMUSREVR` entry defined in `TUXCONFIG`.

Properties

Name	Display Label	Characters	Description
Name	Name	Visible Editable	`[Group Name]/[AOUT]:[ SRVID]`
Host	Host	Editable(*)	The listening IP address or hostname of the `tlisten` process associated with the Tuxedo Machine.
Port	Port	Editable(*)	The listening port of the JMX RMI connector embedded in `tlisten` process associated with the Tuxedo Machine.
DOMAINID	DOMAINID	Editable(*), UBB Parameter	
IPCKEY	IPCKEY	Editable(*), UBB Parameter	
SRVGRP	SRVGRP	Visible Editable(*), UBB Parameter	Group name
GRPNO	GRPNO	UBB Parameter	`GRPNO` parameter for the group
SRVID	SRVID	Visible Editable(*), UBB Parameter	`SRVID` parameter for the server entry defined in `SERVERS` section of `UBBCONFIG`

AOUT	AOUT	Visible	Process name
		UBB Parameter	
Migrated	Is Migrated Target		Indicates whether this target has been migrated off.

Availability Metrics

Metric Name		Response	
Metric Type		TABLE	
Metric Display		Response	
Collection Interval		5 minutes	
Key Column(s)		None	
Column Name	**Column Type**	**Display Label**	**Note**
Timing	NUMBER	Elapsed Time	
Status	NUMBER	Status	0:Inactive, when the process is running
			1:Active, if the process instance is running.
			If status>=1, then the target is available.

Event Statistics Metrics

Metric Name	EVENT_STATISTICS
Metric Type	TABLE
Metric Display	Event Statistics
Collection Interval	15 minutes

Key Column(s)		None	
Column Name	**Column Type**	**Display Label**	**Note**
SERVICE_EVENT_N UMBER	NUMBER	Notified Events by Service Per Minute	The number of the events notified to Tuxedo service per minute. This value will become to 0 at the earliest collection after the collection interval or target properties are changed. Not NULL Threshold: >
UNSOLICITED_MES SAGE_EVENT_NUM BER	NUMBER	Notified Events by Unsolicited Message Per Minute	The number of the events notified by unsolicited message per minute. This value will become to 0 at the earliest collection after the collection interval or target properties are changed. Not NULL Threshold: >

QUEUE_MESSAGE_ EVENT_NUMBER	NUMBER	Notified Events by Queue Message Per Minute	The number of the events notified to /Q per minute.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>
COMMAND_LINE_E VENT_NUMBER	NUMBER	Notified Events by Command Line Per Minute	The number of the events notified by command line per minute.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>

USERLOG_MESSAG E_EVENT_NUMBER	NUMBER	Notified Events by USERLOG Message Per Minute	The number of the events notified by ULOG message per minute.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>
EVENT_NUMBER	NUMBER	Notified Events Per Minute	The number of the events notified by all methods per minute.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Value:
			`SERVICE_EVENT_NU MBER+ UNSOLICITED_MESS AGE_EVENT_NUMBER + QUEUE_MESSAGE_EV ENT_NUMBER+ COMMAND_LINE_EVE NT_NUMBER+ USERLOG_MESSAGE_ EVENT_NUMBER`
			Threshold:
			>

Tuxedo LMS

This target corresponds to an LMS entry defined in TUXCONFIG.

Properties

Name	Display Label	Characters	Description
Name	Name	Visible, Editable	[Group Name]/[AOUT]:[SRVID]
Host	Host	Editable(*)	The listening IP address or hostname of the tlisten process associated with the Tuxedo Machine.
Port	Port	Editable(*)	The listening port of the JMX RMI connector embedded in tlisten process associated with the Tuxedo Machine.
DOMAINID	DOMAINID	Editable(*), UBB Parameter	
IPCKEY	IPCKEY	Editable(*), UBB Parameter	
SRVGRP	SRVGRP	Visible Editable(*), UBB Parameter	Group name
GRPNO	GRPNO	UBB Parameter	GRPNO parameter for the group
SRVID	SRVID	Visible Editable(*), UBB Parameter	SRVID parameter for the server entry defined in SERVERS section of UBBCONFIG
AOUT	AOUT	Visible Editable UBB Parameter	Process name

Migrated	Is Migrated Target			Indicates whether this target has been migrated off.
TUXCONFIG	TUXCONFIG	Visible		
User Name	Tuxedo User	Visible		Use this Tuxedo User to get metric data.
User Password	Tuxedo User Password	Visible		Use this Tuxedo User to get metric data.
Application Password	Tuxedo Application Password	Visible		Use this Tuxedo User to get metric data.
useSSL	Use SSL	Visible		Use SSL or not

Availability Metrics

Metric Name		Response	
Metric Type		TABLE	
Metric Display		Response	
Collection Interval		5 minutes	
Key Column(s)		None	
Column Name	**Column Type**	**Display Label**	**Note**
Timing	NUMBER	Elapsed Time	
Status	NUMBER	Status	0:Inactive, when no process instance is running
			1:Active, if at least one process instance is running
			If status>=1, the target is available.

Tuxedo /Q Manager Server

This target is used to monitor Tuxedo /Q, from which you can view queue related statistics information.

Properties

Name	Display Label	Characters	Description
Name	Name	Visible, Editable	[Group Name]/[AOUT]:[SRVID]
Host	Host	Editable(*)	The listening IP address or hostname of the 'tlisten' process associated with the Tuxedo Machine.
Port	Port	Editable(*)	The listening port of the JMX RMI connector embedded in 'tlisten' process associated with the Tuxedo Machine.
DOMAINID	DOMAINID	Editable(*), UBB Parameter	
IPCKEY	IPCKEY	Editable(*), UBB Parameter	
LMID	LMID	Editable(*), UBB Parameter	
SRVGRP	SRVGRP	Editable(*), Visible UBB Parameter	group name
GRPNO	GRPNO	UBB Parameter	GRPNO parameter for the group
SRVID	SRVID	Visible, Editable(*) UBB Parameter	SRVID parameter for the server entry defined in SERVERS section of UBBCONFIG(5)

Name	Display Label	Characters	Description
Qspace name	Qspace Name	Visible Editable(*)	Qspace name
QMCONFIG	Queue space path	Visible Editable(*)	Absolute pathname of the file or device where the application queue space is located.
AOUT	AOUT	Visible Editable, UBB Parameter	process name
User Name	Tuxedo User	Visible	Use this Tuxedo User to get metric data
User Password	Tuxedo User Password	Visible	Use this Tuxedo User to get metric data
Application Password	Tuxedo Application Password	Visible	Use this Tuxedo User to get metric data
useSSL	Use SSL	Visible	Use SSL or not
Migrated	Is Migrated Target		Indicates whether this target has been migrated off.

Associations

Tuxedo Group App_composite_contains Tuxedo /Q Manager Server

Availability Metrics

Metric Name	Response
Metric Type	TABLE
Metric Display	Response
Collection Interval	5 minutes

Key Column(s)		None	
Column Name	**Column type**	**Display Label**	**Note**
Timing	NUMBER	Elapsed Time	
Status	NUMBER	Status	0: Inactive, When /Q Manager Server process is not running.
			1: Active, when /Q Manager Server is running.
			If status>=1, then the target is available.

Queue Space Statistics Metrics

Metric Name		QUEUE_SPACE_STATISTICS	
Metric Type		TABLE	
Metric Display		Queue Space Statistics	
Collection Interval		15 minutes	
Key Column(s)		QSPACE_NAME, STATE	
Column Name	**Column Type**	**Display Label**	**Note**
QSPACE_NAME	STRING	Name	TA_APPQSPACENAME
STATE	STRING	State	TA_STATE
ACTIONS	NUMBER	Current Actions	TA_CURACTIONS
			Not NULL
			Threshold:
			>

CURSORS	NUMBER	Current Cursors	TA_CURCURSORS Not NULL Threshold: >
HANDLES	NUMBER	Current Handles	TA_CURHANDLES Not NULL Threshold: >
MEMNONPERSIST	NUMBER	Memory of Non-persistent Messages	TA_CURMEMNONP ERSIST Not NULL Threshold: >
PENDING_MSG	NUMBER	Total Pending Messages	TA_CURMSG Not NULL Threshold: >
PROCS	NUMBER	Current Processes	TA_CURPROC Not NULL Threshold: >
QUEUES	NUMBER	Current Queues	TA_CURQUEUES Not NULL Threshold: >

TQUEUES	NUMBER	Current Temp Queues	TA_CURTMPQUEUE S
			Not NULL
			Threshold:
			>
TRANS	NUMBER	Current Transactions	TA_CURTRANS
			Not NULL
			Threshold:
			>

Queue Space Peak Metrics

Metric Name		QUEUE_SPACE_PEAK	
Metric Type		TABLE	
Metric Display		Queue Space Peak Value	
Collection Interval		15 minutes	
Key Column(s)		QSPACE_NAME	
Column Name	**Column Type**	**Display Label**	**Note**
QSPACE_NAME	STRING	Queue Space Name	TA_APPQSPACENA ME
			Not NULL
			Threshold:
			>
ACTIONS	NUMBER	Concurrent Actions	TA_H
			WACTIONS
			Not NULL
			Threshold:
			>

CURSORS	NUMBER	Concurrent Cursors	TA_HWCURSORS Not NULL Threshold: >
HANDLES	NUMBER	Concurrent Handles	TA_HWHANDLES Not NULL Threshold: >
MEMNONPERSIST	NUMBER	Memory Consumed by Non-persist Message Memory	TA_HWMEMNONPE RSIST Not NULL Threshold: >
PENDING_MSG	NUMBER	Pending Messages	TA_HWMSG Not NULL Threshold: >
OWNERS	NUMBER	Concurrent Owners	TA_HWOWNERS Not NULL Threshold: >
PROCS	NUMBER	Concurrent Processes	TA_HWPROC Not NULL Threshold: >
QUEUES	NUMBER	Queues	TA_HWQUEUES Not NULL Threshold: >

TQUEUES	NUMBER	Temp Queues	TA_HWTMPQUEUES Not NULL Threshold: >
TRANS	NUMBER	Concurrent Transactions	TA_HWTRANS Not NULL Threshold: >

Queue Statistics Metrics

Metric Name	QUEUE_STATISTICS		
Metric Type	TABLE		
Metric Display	Queue Statistics		
Collection Interval	15 minutes		
Key Column(s)	QUEUE_NAME, QSPACE_NAME		
Column Name	**Column Type**	**Display Label**	**Note**
QUEUE_NAME	STRING	Name	TA_APPQNAME Not NULL Threshold: >
QSPACE_NAME	STRING	Queue Space Name	TA_APPQSPACENA ME Not NULL Threshold: >

BLOCKS	NUMBER	Disk Pages	TA_CURBLOCKS Not NULL Threshold: >
NONPERSIST_MEM	NUMBER	Memory Bytes Consumed by Non-persistent Messages	TA_CURNONPERSIS TBYTES Not NULL Threshold: >
PENDING_MSG	NUMBER	Pending Messages	TA_CURMSG+TA_C URNONPERSISTMS G Not NULL Threshold: >

TMA Targets

TMA SNA Gateway

This target corresponds to a GWSNAX entry defined in TUXCONFIG.

Properties

Name	Display Label	Characters	Description
Name	Name	Visible Editable	`[Group Name]/[AOUT]:[` `SRVID]`
Host	Host	Editable(*)	The listening IP address or hostname of the `tlisten` process associated with the Tuxedo Machine.

Port	Port	Editable(*)	The listening port of the JMX RMI connector embedded in tlisten process associated with the Tuxedo Machine.
DOMAINID	DOMAINID	Editable(*), UBB Parameter	
IPCKEY	IPCKEY	Editable(*), UBB Parameter	
SRVGRP	SRVGRP	Visible Editable(*), UBB Parameter	group name
GRPNO	GRPNO	UBB Parameter	GRPNO parameter for the group
SRVID	SRVID	Visible Editable(*), UBB Parameter	SRVID parameter for the server entry defined in SERVERS section of UBBCONFIG(5)
AOUT	AOUT	Visible UBB Parameter	Process name
GatewayAddress	Gateway Address	Visible	Listening address of the domain gateway
GatewayPort	Gateway Port	Visible	Listening port of the domain gateway
User Name	Tuxedo User	Visible	Use this Tuxedo User to get metric data.
User Password	Tuxedo User Password	Visible	Use this Tuxedo User to get metric data.
Application Password	Tuxedo Application Password	Visible	Use this Tuxedo User to get metric data.

Migrated	Is Migrated Target		Indicates whether this target has been migrated off.
useSSL	Use SSL	Visible	Use SSL or not

Availability Metrics

Metric Name			Response
Metric Type			TABLE
Metric Display			Response
Collection Interval			5 minutes
Key Column(s)			None
Column Name	**Column Type**	**Display Label**	**Note**
Timing	NUMBER	Elapsed Time	
Status	NUMBER	Status	0:Inactive, when the process is running 1:Active, if the process instance is running If status>=1, then the target is available.

XA Transaction Metrics

Metric Name	SNA_DOMAIN_GATEWAY_TRANSACTION_STAT ISTICS
Metric Type	TABLE
Metric Display	SNA Domain Gateway Transaction Statistics
Collection Interval	15 minutes

Key Column(s)		None	
Column Name	**Column Type**	**Display Label**	**Note**
COMMITTED_TRAN SACTION_NUMBER	NUMBER	Committed XA Transaction Per Minute	The number of XA transactions committed (per minute) during the interval.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>

ABORTED_TRANSA CTION_NUMBER	NUMBER	Aborted XA Transaction Per Minute	The number of XA transactions aborted per minute during the interval.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>
COMPLETE_TRANS ACTION_NUMBER	NUMBER	Complete Transaction Per Minute	The number of XA transactions aborted or committed per minute during the interval.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Value:
			`COMMITTED_ TRANSACTION_NUMB ER+ ABORTED_ TRANSACTION_NUMB ER`
			Threshold:
			>

Remote Link Metrics

Metric Name	REMOTE_LINK_STATISTICS
Metric Type	TABLE
Metric Display	Remote Link Statistics
Collection Interval	15 minutes
Key Column(s)	REMOTE_DOMAIN_ID

Column Name	Column Type	Display Label	Note
REMOTE_DOMAIN_ID	STRING	Remote Domain ID	The remote domain ID.
CONNECTION_STATUS	STRING	Connection Status	The connection to the remote Mainframe domain status. TA_STATE filed of T_DM_CONNECTION class, DM_MIB. Value: {ACT | SUS | INI | INA | UNK}
INBOUND_MESSAGE_NUMBER	NUMBER	Inbound Network Message Per Minute	The number of messages transferred from the remote Mainframe domain per minute. This value becomes to 0 at the earliest collection after the collection interval or target properties are changed. Not NULL Threshold: >

OUTBOUND_MESSA GE_NUMBER	NUMBER	Outbound Network Message Per Minute	The number of messages transferred to the remote Mainframe domain per minute. This value becomes to 0 at the earliest collection after the collection interval or target properties are changed. Not NULL Threshold: >
INBOUND _NETWORK_MESSA GE_SIZE	NUMBER	Inbound Network Message Bytes Per Minute	The message size (in byte) transferred from the remote Mainframe domain per minute. This value becomes to 0 at the earliest collection after the collection interval or target properties are changed. Not NULL Threshold: >
OUTBOUND _NETWORK_MESSA GE_SIZE	NUMBER	Outbound Network Message Bytes Per Minute	The message size (in byte) transferred to the remote Mainframe domain per minute. This value becomes to 0 at the earliest collection after the collection interval or target properties are changed. Not NULL Threshold: >

PENDING_NETWOR K_MESSAGE_NUMB ER	NUMBER	Pending Network Message	The number of messages that are pending in the network to the remote Mainframe domain. Not NULL Threshold: >
PENDING_NETWOR K_MESSAGE_SIZE	NUMBER	Pending Network Message Bytes	The total messages size (in byte) that are pending in the network to the remote Mainframe domain. Not NULL Threshold: >
OUTSTANDING_NE TWORK_REQUEST_ NUMBER	NUMBER	Outstanding Network Request	The number of requests that are waiting for reply from the remote Mainframe domain. Not NULL Threshold: >

TMA TCP Gateway

This target corresponds to a GWIDOMAIN entry defined in TUXCONFIG.

Properties

Name	Display Label	Characters	Description
Name	Name	Visible Editable	[Group Name]/[AOUT]:[SRVID]

Host	Host	Editable(*)	The listening IP address or hostname of the `tlisten` process associated with the Tuxedo Machine.
Port	Port	Editable(*)	The listening port of the JMX RMI connector embedded in `tlisten` process associated with the Tuxedo Machine.
DOMAINID	DOMAINID	Editable(*), UBB Parameter	
IPCKEY	IPCKEY	Editable(*), UBB Parameter	
SRVGRP	SRVGRP	Visible Editable(*), UBB Parameter	Group name
GRPNO	GRPNO	UBB Parameter	`GRPNO` parameter for the group
SRVID	SRVID	Visible Editable(*), UBB Parameter	SRVID parameter for the server entry defined in SERVERS section of UBBCONFIG(5)
AOUT	AOUT	Visible UBB Parameter	Process name
GatewayAddress	Gateway Address	Visible	Listening address of the domain gateway.
GatewayPort	Gateway Port	Visible	Listening port of the domain gateway.
User Name	Tuxedo User	Visible	Use this Tuxedo User to get metric data.
User Password	Tuxedo User Password	Visible	Use this Tuxedo User to get metric data.
Application Password	Tuxedo Application Password	Visible	Use this Tuxedo User to get metric data.

Migrated	Is Migrated Target		Indicates whether this target has been migrated off.
useSSL	Use SSL	Visible	Use SSL or not

Availability Metrics

Metric Name			Response
Metric Type			TABLE
Metric Display			Response
Collection Interval			5 minutes
Key Column(s)			None
Column Name	**Column Type**	**Display Label**	**Note**
Timing	NUMBER	Elapsed Time	
Status	NUMBER	Status	0:Inactive, when the process is running
			1:Active, if the process instance is running
			If status>=1, then the target is available.

XA Transaction Metrics

Metric Name	`TCP_DOMAIN_GATEWAY_TRANSACTION_STAT` `ISTICS`
Metric Type	TABLE
Metric Display	TCP Domain Gateway Transaction Statistics
Key Column(s)	None
Collection Interval	15 minutes

Column Name	Column Type	Display Label	Note
COMMITTED_TRAN SACTION_NUMBER	NUMBER	Committed XA Transaction Per Minute	The number of XA transactions committed per minute during the interval.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>

ABORTED_TRANSA CTION_NUMBER	NUMBER	Aborted XA Transaction Per Minute	The number of XA transactions aborted per minute during the interval.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>
COMPLETE_TRANS ACTION_NUMBER	NUMBER	Complete Transaction Per Minute	The number of XA transactions aborted or committed per minute during the interval.
			This value will become to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Value:
			`COMMITTED_ TRANSACTION_NUMB ER+ ABORTED_ TRANSACTION_NUMB ER`
			Threshold:
			>

Remote Link Metrics

Metric Name	REMOTE_LINK_STSTISTICS
Metric Type	TABLE
Metric Display	Remote Link Statistics
Collection Interval	15 minutes
Key Column(s)	REMOTE_DOMAIN_ID

Column Name	Column Type	Display Label	Note
REMOTE_DOMAIN_ID	STRING	Remote Domain ID	The remote domain ID.
CONNECTION_STATUS	STRING	Connection Status	The connection to the remote Mainframe domain status.
			TA_STATE filed of T_DM_CONNECTION class, DM_MIB.
			Value:
			{ACT | SUS | INI | INA | UNK}
INBOUND_MESSAGE_NUMBER	NUMBER	Inbound Network Message Per Minute	The number of messages transferred from the remote Mainframe domain per minute.
			This value becomes to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>

OUTBOUND_MESSA GE_NUMBER	NUMBER	Outbound Network Message Per Minute	The number of messages transferred to the remote Mainframe domain per minute.
			This value becomes to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>
INBOUND _NETWORK_MESSA GE_SIZE	NUMBER	Inbound Network Message Bytes Per Minute	The message size (in byte) transferred from the remote Mainframe domain per minute.
			This value becomes to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>
OUTBOUND _NETWORK_MESSA GE_SIZE	NUMBER	Outbound Network Message Bytes Per Minute	The message size (in byte) transferred to the remote Mainframe domain per minute.
			This value becomes to 0 at the earliest collection after the collection interval or target properties are changed.
			Not NULL
			Threshold:
			>

PENDING_NETWOR K_MESSAGE_NUMB ER	NUMBER	Pending Network Message	The number of messages that are pending in the network to the remote Mainframe domain. Not NULL Threshold: >
PENDING_NETWOR K_MESSAGE_SIZE	NUMBER	Pending Network Message Bytes	The total messages size (in byte) that are pending in the network to the remote Mainframe domain. Not NULL Threshold: >
OUTSTANDING_NE TWORK_REQUEST_ NUMBER	NUMBER	Outstanding Network Request	The number of requests that are waiting for the reply from the remote Mainframe domain. Not NULL Threshold: >

TMA CRM

Description

The Communications Resource Manager (CRM) is the Oracle Tuxedo Mainframe Adapter for SNA component that manages communications resources. The CRM coordinates the flow of data between applications running on an ATMI platform and applications running on a mainframe.

Properties

Name	Display Label	Characters	Description
Name	Name	Visible Editable	`CRM/[Host]:[Port]`
Host	Host	Editable	CRM address.
Port	Port	Editable	CRM host.
AOUT	AOUT	Visible Editable	Process name

Availability Metrics

Metric Name		Response	
Metric Type		TABLE	
Metric Display		Response	
Collection Interval		1 minute	
Key Column(s)		None	
Column Name	**Column Type**	**Display Label**	**Note**
Timing	NUMBER	Elapsed Time	
Status	NUMBER	Status	0: Inactive, when the service metrics has not been collected from source target.
			1:Active, when the service metrics has been collected from source target.
			If status>=1, then the target is available.

Trace Status Metrics

Metric Name	TRACE_STATUS		
Metric Type	TABLE		
Metric Display	Trace Status		
Collection Interval	10 minutes		
Key Column(s)			
Column Name	**Column Type**	**Display Label**	**Note**
APPC_STACK_TRAC E	STRING	Appc Stack Trace	
TRACE_LEVEL	STRING	Trace Level	

Remote Link Status Metrics

Metric Name	REMOTE_LINK_STATUS		
Metric Type	TABLE		
Metric Display	Remote Link Status		
Collection Interval	5 minutes		
Key Column(s)	REMOTE_LINK_ID		
Column Name	**Column Type**	**Display Label**	**Note**
REMOTE_LINK_ID	STRING	ID	
MAX_COUNT	NUMBER	Max	Not NULL
ACTIVE_COUNT	NUMBER	Active	Not NULL
IN_USE_COUNT	NUMBER	In Use	Not NULL

Remote Link Statistics Metrics

Metric Name	REMOTE_LINK_STATISTICS
Metric Type	TABLE
Metric Display	Remote Link Statistics
Collection Interval	5 minutes
Key Column(s)	REMOTE_LINK_ID

Column Name	Column Type	Display Label	Note
REMOTE_LINK_ID	STRING	ID	
INPUT_CONVERSAT ION_COUNT	NUMBER	Input Conversations Per Minute	Not NULL Threshold: >
INPUT_MESSAGE_C OUNT	NUMBER	Input Messages Per Minute	Not NULL Threshold: >
INPUT_DATA_SIZE	NUMBER	Input Data Per Minute	Not NULL Threshold: >
OUTPUT_CONVERS ATION_COUNT	NUMBER	Output Conversations Per Minute	Not NULL Threshold: >
OUTPUT_MESSAGE _COUNT	NUMBER	Output Messages Per Minute	Not NULL Threshold: >
OUTPUT_DATA_SIZ E	NUMBER	Output Data Per Minute	Not NULL Threshold: >

ART CICS Targets

Tuxedo CICS Region

"Tuxedo CICS Region" is a system target type.

Associations

Tuxedo Domain App_composite_contains: Tuxedo CICS Region targets

App_composite_contains: Tuxedo CICS Transaction targets

Properties

Name	Display Label	Characters	Description
Name	Name	Visible Editable(*)	Name of the region. When first discovery, the CICS Region name will be [Domain Name]/ CICS_Region User is able to give a new name when they redefine the ART CICS region.

ART CICS Statistics Metrics

Metric Name		ART_CICS_REGION_STATISTICS	
Metric Type		Repository	
Metric Display		ART CICS Region Statistics	
Collection interval		15 minutes	
Key Column(s)		None	
Column Name	**Column type**	**Display Label**	**Note**
TRANSACTION_NA ME	String	Name	Transaction Name

EXECUTION_TIME	NUMBER	Average Execution Time (microsecond)	The value will be NULL if no request is served during the interval.
			AVG(service_statistics. avg_execution_time)
			Threshold:
			>
CPU_TIME	NUMBER	Average CPU Time (microsecond)	The value will be NULL if no request is served during the interval.
			Value:
			AVG(service_statistics. CPU_time)
			Threshold:
			>
TRANSACTION_NU MBER	NUMBER	Transactions Per Minute	Not NULL
			Value:
			transaction_success_nu mber+ transaction_failure_nu mber
			Threshold:
			>
TRANSACTION_SUC CESS_NUMBER	NUMBER	Transaction Successes Per Minute	Not NULL
			Value:
			Sum(service_statistics. success_number)
			Threshold:
			>

TRANSACTION_FAILURE_NUMBER	NUMBER	Transaction Failures Per Minute	Not NULL Value: Sum(service_statistics.system_failure_number + service_statistics user_failure_number) Threshold: >
FAILED_TRANSACTION_RATIO	NUMBER	Failed Transaction ratio(%)	The value will be NULL if no request is served during the interval. Value: (100*transaction_failure_number/ transaction_number) Threshold: >

Tuxedo ART CICS Transaction

"Tuxedo ART CICS Transaction" is defined in the ART CICS resource file "transactions.desc"; on Enterprise Manager side. Metrics of an ART transaction are aggregated from all associated Tuxedo servers.

Properties

Name	Display Label	Characters	Description
Name	Name	Visible Editable(*)	[ART CICS Region Name]/[Transaction Name]
Host	Host	Editable(*)	The listening IP address or hostname of the 'tlisten' process associated with the Tuxedo Machine.

Name	Display Label	Characters	Description
Port	Port	Editable(*)	The listening port of the JMX RMI connector embedded in 'tlisten' process associated with the Tuxedo Machine.
TransactionName	Transaction Name	Editable(*)	

ART CICS Transaction Metrics

This metrics is repository side metrics, which is aggregated from all "ART Transaction Server" targets under the ART CICS Region in terms of service name.

Metric Name		ART_CICS_TSANSACTION_STATISTICS	
Metric Type		TABLE Repository Side	
Metric Display		ART CICS Transaction Statistics	
Collection interval		15 minutes	
Key Column(s)		None	
Column Name	**Column Type**	**Display Label**	**Note**
MESSAGE SIZE	NUMBER	Message Bytes Per Minute	The value will be NULL if no request is served during the interval.

EXECUTION_TIME	NUMBER	Average Execution Time (microsecond)	The value will be NULL if no request is served during the interval.
			Value:
			AVG(service_statistics. avg_execution_time)
			Threshold:
			>
CPU_TIME	NUMBER	Average CPU Time (microsecond)	The value will be NULL if no request is served during the interval.
			Value:
			AVG(service_statistics. CPU_time)
			Threshold:
			>
SUCCESS_NUMBER	NUMBER	Successes Per Minute	Not NULL
			Value:
			Sum(service_statistics. success_number)
			Threshold:
			>
SYSTEM_FAILURE_ NUMBER	NUMBER	System Failures Per Minute	Not NULL
			Value:
			Sum(service_statistics. system_failure_number)
			Threshold:
			>

USER_FAILURE_NU MBER	NUMBER	User Failures Per Minute	Not NULL
			Value:
			Sum(service_statistics. user_failure_number)
			Threshold:
			>
REQUEST_NUMBER	NUMBER	Requests Per Minute	Not NULL
			Value:
			Sum(service_statistics. success_number + service_statistics. system_failure_number +service_statistics. user_failure_number)
			Threshold:
			>
FAILED_TRANSACT ION_RATIO	NUMBER	Failed Transactions ratio(%)	The value will be NULL if no request is served during the interval.
			Value:
			(100* success_number r/ request_number)
			Threshold:
			>

ART CICS TSQ Server

Properties

Name	Display Label	Characters	Description
Name	Name	Visible, Editable	[Group Name]/[AOUT]:[SRVID]
Host	Host	Editable(*)	The listening IP address or hostname of the 'tlisten' process associated with the Tuxedo Machine.
Port	Port	Editable(*)	The listening port of the JMX RMI connector embedded in 'tlisten' process associated with the Tuxedo Machine.
DOMAINID	DOMAINID	Editable(*), UBB Parameter	
IPCKEY	IPCKEY	Editable(*), UBB Parameter	
SRVGRP	SRVGRP	Visible Editable(*), UBB Parameter	group name
GRPNO	GRPNO	UBB Parameter	GRPNO parameter for the group
SRVID	SRVID	Visible Editable(*), UBB Parameter	SRVID parameter for the server entry defined in SERVERS section of UBBCONFIG
AOUT	AOUT	Visible, UBB Parameter	process name
User Name	Tuxedo User	Visible	Use this Tuxedo User to get metric data

Name	Display Label	Characters	Description
User Password	Tuxedo User Password	Visible	Use this Tuxedo User to get metric data
Application Password	Tuxedo Application Password	Visible	Use this Tuxedo User to get metric data
useSSL	Use SSL	Visible	Use SSL or not

Availability Metrics

Metric Name	Response		
Metric Type	TABLE		
Metric Display	Response		
Collection Interval	5 minutes		
Key Column(s)	None		
Column Name	**Column type**	**Display Label**	**Note**
Timing	NUMBER	Elapsed Time	
Status	NUMBER	Status	0:Inactive, when the process is running
			1:Active, if the process instance is running
			If status>=1, then the target is available.

ART TSQ Metrics

Metric Name	ARTTSQ_STATISTICS
Metric Type	TABLE
Metric Display	ART TSQ Statistics

Collection Interval	15 minutes		
Key Column(s)	TSQUEUE_NAME		
Column Name	**Column type**	**Display Label**	**Note**
TSQUEUE_NAME	STRING	Name	
TOTAL_LENGTH	MUMBER	All Items Length (Bytes)	Indicates the total length in bytes of all the items in the temporary storage queue.
MAXITEMLEN	MUMBER	Largest Item Length (Bytes)	Indicates the length in bytes of the largest item in the temporary storage queue.
MINITEMLEN	MUMBER	Smallest Item Length (Bytes)	Indicates the length in bytes of the smallest item in the temporary storage queue.
NUMITEMS	NUMBER	Items	Indicates the number of items in the temporary storage queue.
WRITEQSUM	NUMBER	WRITEQ Commands Per Minute	Indicates the total number of WRITEQ commands performed of this TSQUEUE.
REWRITESUM	NUMBER	REWRITEQ Commands Per Minute	Indicates the total number of REWRITEQ commands performed of this TSQUEUE.
READQSUM	NUMBER	READQ Commands Per Minute	Indicates the total number of READQ commands performed of this TSQUEUE.

ART CICS TDQ Server

Properties

Name	Display Label	Characters	Description
Name	Name	Visible, Editable	[Group Name]/[AOUT]:[SRVID]
Host	Host	Editable(*)	The listening IP address or hostname of the 'tlisten' process associated with the Tuxedo Machine.
Port	Port	Editable(*)	The listening port of the JMX RMI connector embedded in 'tlisten' process associated with the Tuxedo Machine.
DOMAINID	DOMAINID	Editable(*), UBB Parameter	
IPCKEY	IPCKEY	Editable(*), UBB Parameter	
SRVGRP	SRVGRP	Visible Editable(*), UBB Parameter	group name
GRPNO	GRPNO	UBB Parameter	GRPNO parameter for the group
SRVID	SRVID	Visible Editable(*), UBB Parameter	SRVID parameter for the server entry defined in SERVERS section of UBBCONFIG
AOUT	AOUT	Visible UBB Parameter	process name

Name	Display Label	Characters	Description
User Name	Tuxedo User	Visible	Use this Tuxedo User to get metric data
User Password	Tuxedo User Password	Visible	Use this Tuxedo User to get metric data
Application Password	Tuxedo Application Password	Visible	Use this Tuxedo User to get metric data
useSSL	Use SSL	Visible	Use SSL or not

Availability Metrics

Metric Name	Response		
Metric Type	TABLE		
Metric Display	Response		
Collection Interval	5 minutes		
Key Column(s)	None		
Column Name	**Column type**	**Display Label**	**Note**
Timing	NUMBER	Elapsed Time	
Status	NUMBER	Status	0:Inactive, when the process is running 1:Active, if the process instance is running If status>=1, then the target is available.

ART TDQ Metrics

Metric Name	ARTTDQ_STATISTICS		
Metric Type	TABLE		
Metric Display	ART TDQ Statistics		
Collection Interval	15 minutes		
Key Column(s)	TDQUEUE_NAME		
Column Name	**Column Type**	**Display Label**	**Note**
TDQUEUE_NAME	STRING	TDQUEUE Name	
WRITEQSUM	NUMBER	WRITEQ commands Per Minute	Indicates the total number of WRITEQ commands performed of this TSQUEUE.
READQSUM	NUMBER	READQ commands Per Minute	Indicates the total number of READQ commands performed of this TSQUEUE.

ART Batch Targets

Tuxedo Batch System

This is a system type target that is used to monitor the metrics generated by JES jobs.

Properties

Name	Display Label	Characters	Description
Name	Name	Visible, Editable	Name of the Batch System. When first discovery, the Batch System name will be [Domain Name]/Batch_System
Host	Host	Editable(*)	The listening IP address or hostname of the 'tlisten' process associated with the Tuxedo Machine.
Port	Port	Editable(*)	The listening port of the JMX RMI connector embedded in 'tlisten' process associated with the Tuxedo Machine.
domain_id	DOMAINID	Editable(*), UBB Parameter	
IPC_key	IPCKEY	Editable(*), UBB Parameter	
snmp_agent_port	Receive Port for SNMP Agent	Editable(*) OPTIONAL	
UserName	User Name	Editable(*) OPTIONAL	
password	User Password	Editable(*) OPTIONAL	
application_password	Application Password	Editable(*) OPTIONAL	
useSSL	Use SSL	Editable(*)	

Availability Metrics

Metric Name	Response
Metric Type	TABLE

Metric Display	Response		
Collection Interval	5 minutes		
Key Column(s)	None		
Column Name	**Column type**	**Display Label**	**Note**
Timing	NUMBER	Elapsed Time	
Status	NUMBER	Status	0: Inactive, When no ARTJESADM server is active.
			1: Active, when at least one ARTJESADM server is active

Job Aggregated Statistics

Metric Name	JOB_AGGREGATED_STATISTICS		
Metric Type	TABLE		
Metric Display	Job Aggregated Statistics		
Collection Interval	15 minutes		
Key Column(s)			
Column Name	**Column type**	**Display Label**	**Note**
SUBMITTED_NUMBER	NUMBER	Submitted Jobs Per Minute	
SUCCESSFUL_NUMBER	NUMBER	Successes Per Minute	
FAILED_NUMBER	NUMBER	Failures Per Minute	
WAITING_NUMBER	NUMBER	WAITING Jobs	
AVERAGE_USRCPU	NUMBER	Average User CPU Time (milliseconds)	

AVERAGE_SYSCPU	NUMBER	Average System CPU Time (milliseconds)	
AVERAGE_CPU	NUMBER	Average CPU Time (milliseconds)	
AVERAGE_EXECUTI ON_TIME	NUMBER	Average Execution Time (second)	

OTMQ Manager Server

This target is used to monitor OTMQ, from which you can view queue related statistics information. Target type is tuxedo_OTMQ_server.

Properties

Name	Display Label	Characters	Description
Name	Name	Visible, Editable	`[Group Name]/[AOUT]:[ SRVID]`
Host	Hostname	Editable(*)	The listening IP address or hostname of the 'tlisten' process associated with the Tuxedo Machine.
Port	Port	Editable(*)	The listening port of the JMX RMI connector embedded in 'tlisten' process associated with the Tuxedo Machine.
DOMAINID	Domain ID	Editable(*), UBB Parameter	
IPCKEY	IPC Key	Editable(*), UBB Parameter	
LMID	LMID	Editable(*), UBB Parameter	

Name	Display Label	Characters	Description
SRVGRP	Group Name	Editable(*), Visible UBB Parameter	Group name
GRPNO	Group Number	UBB Parameter	Group Number for the group
SRVID	SRVID	Visible Editable(*) UBB Parameter	SRVID parameter for the server entry defined in SERVERS section of UBBCONFIG(5)
Queue server name	AOUT	Visiable Editable	OTMQ server name
Qspace name	Queue Space Name	Visible Editable(*)	OTMQ Qspace name
QMCONFIG	Queue space path	Visible Editable(*)	Absolute pathname of the file or device where the application queue space is located.
Migrated	Is Migrated Target		Indicates whether this target has been migrated off.
User Name	User Name	Editable	Use this Tuxedo User to get metric data
User Password	User Password	Editable	Tuxedo User password
Application Password	Application Password	Editable	Tuxedo Application password
useSSL	Use SSL	Editable	Use SSL or not

Associations

Tuxedo Group App_composite_contains OTMQ Manager Server

Availability Metrics

Metric Name	Response		
Metric Type	TABLE		
Metric Display	Response		
Collection Interval	5 minutes		
Key Column(s)	None		
Column Name	**Column Type**	**Display Label**	**Note**
Timing	NUMBER	Elapsed Time	
Status	NUMBER	Status	0: Inactive, When OTMQ Manager Server process is not running.
			1: Active, when OTMQ Manager Server is running.
			If status>=1, then the target is available.

Queue Space Statistics Metrics

Metric Name	QUEUE_SPACE_STATISTICS		
Metric Type	TABLE		
Metric Display	Queue Space Statistics		
Collection Interval	15 minutes		
Key Column(s)	QSPACE_NAME		
Column Name	**Column Type**	**Display Label**	**Note**
QSPACE_NAME	STRING	Name	TA_APPQSPACENAME

STATE	STRING	State	TA_STATE
ACTIONS	NUMBER	Current Actions	TA_CURACTIONS Not NULL Threshold: >
CURSORS	NUMBER	Current Cursors	TA_CURCURSORS Not NULL Threshold: >
HANDLES	NUMBER	Current Handles	TA_CURHANDLES Not NULL Threshold: >
MEMNONPERSIST	NUMBER	Memory of Non-persistent Messages	TA_CURMEMNONPERSIST Not NULL Threshold: >
PENDING_MSG	NUMBER	Total Pending Messages	TA_CURMSG Not NULL Threshold: >
PROCS	NUMBER	Current Processes	TA_CURPROC Not NULL Threshold: >
QUEUES	NUMBER	Current Queues	TA_CURQUEUES Not NULL Threshold: >

TQUEUES	NUMBER	Current Temp Queues	TA_CURTMPQUEUES Not NULL Threshold: >
TRANS	NUMBER	Current Transactions	TA_CURTRANS Not NULL Threshold: >
SENT_MSG	NUMBER	Send Messages Per Minute	TA_MSGSENT Not NULL Threshold: >
RECV_MSG	NUMBER	Receive Messages Per Minute	TA_MSGRCV Not NULL Threshold: >

Queue Space Peak Metrics

Metric Name	QUEUE_SPACE_PEAK		
Metric Type	TABLE		
Metric Display	Queue Space Peak Value		
Collection Interval	15 minutes		
Key Column(s)	QSPACE_NAME		
Column Name	**Column type**	**Display Label**	**Note**
QSPACE_NAME	STRING	Queue Space Name	TA_APPQSPACENAME

ACTIONS	NUMBER	Concurrent Actions	TA_HWACTIONS Not NULL Threshold: >
CURSORS	NUMBER	Concurrent Cursors	TA_HWCURSORS Not NULL Threshold: >
HANDLES	NUMBER	Concurrent Handles	TA_HWHANDLES Not NULL Threshold: >
MEMNONPERSIST	NUMBER	Memory Consumed by Non-persist Message Memory	TA_HWMEMNONPE RSIST Not NULL Threshold: >
PENDING_MSG	NUMBER	Pending Messages	TA_HWMSG Not NULL Threshold: >
OWNERS	NUMBER	Concurrent Owners	TA_HWOWNERS Not NULL Threshold: >
PROCS	NUMBER	Concurrent Processes	TA_HWPROC Not NULL Threshold: >

QUEUES	NUMBER	Queues	TA_HWQUEUES
			Not NULL
			Threshold:
			>
TQUEUES	NUMBER	Temp Queues	TA_HWTMPQUEUES
			Not NULL
			Threshold:
			>
TRANS	NUMBER	Concurrent Transactions	TA_HWTRANS
			Not NULL
			Threshold:
			>

Queue Statistics Metrics

Metric Name	QUEUE_STATISTICS		
Metric Type	TABLE		
Metric Display	Queue Statistics		
Collection Interval	15 minutes		
Key Column(s)	QUEUE_NAME, QSPACE_NAME		
Column Name	**Column type**	**Display Label**	**Note**
QUEUE_NAME	STRING	Name	TA_APPQNAME
QSPACE_NAME	STRING	Queue Space Name	TA_APPQSPACENAME
CUR_PID	NUMBER	Owner Process ID	TA_PID
ATTACH_STATE	STRING	Attach State	TA_STATE

BLOCKS	NUMBER	Disk Pages	TA_CURBLOCKS
			Not NULL
			Threshold:
			>
NONPERSIST_MEM	NUMBER	Memory Bytes Consumed by Non-persistent Messages	TA_CURNONPERSIS TBYTES
			Not NULL
			Threshold:
			>
SENT_MSG	NUMBER	Send Messages Per Minute	TA_MSGSENT
			Not NULL
			Threshold:
			>
RECV_MSG	NUMBER	Receive Messages Per Minute	TA_MSGRCV
			Not NULL
			Threshold:
			>
PENDING_MSG	NUMBER	Pending Messages	TA_CURMSG+TA_C URNONPERSISTMS G
			Not NULL
			Threshold:
			>

ECM Tables

Enterprise Manager Configuration Management (ECM) primarily deals with collection and storage of the configuration data of hardware and software components managed and monitored by Enterprise Manager.

For Enterprise Manager for Oracle Tuxedo, ECM is used to collect and demonstrate configuration information of all Tuxedo Target types.

This section covers the following ECM tables:

- Tuxedo Domain

- Tuxedo Machine

- Tuxedo Group

- Tuxedo Server

- Tuxedo Bridge

- Tuxedo TMS

- Tuxedo /Q

- Tuxedo Message Queue (OTMQ)

Tuxedo Domain

TARGET_TYPE			tuxedo_domain	
UI_IGNORE			N	
HISTORY_IGNORE			N	
COMPARE_IGNORE			N	
TABLE NAME			TUXEDO_ECM_DOMAIN	
SINGLE_ROW			Y	
COLUMN NAME	DISPLAY NAME	TYPE	TYPE_FORMAT	IS_KEY
AUTOTRAN	AUTOTRAN	STRING	64	N
TRANTIME	TRANTIME	NUMBER	10	N
IPCKEY	IPCKEY	NUMBER	10	N
MASTER	MASTER	STRING	64	N
MODEL	MODEL	STRING	32	N
DOMAINID	DOMAINID	STRING	64	N
USERID	UID	NUMBER	10	N

GID	GID	NUMBER	10	N
PERM	PERM	NUMBER	10	N
MAXACCESSE RS	MAXACCESSE RS	NUMBER	10	N
MAXSERVERS	MAXSERVERS	NUMBER	10	N
MAXSERVICE S	MAXSERVICE S	NUMBER	10	N
MAXGROUPS	MAXGROUPS	NUMBER	10	N
MAXNETGRO UPS	MAXNETGRO UPS	NUMBER	10	N
MAXMACHIN ES	MAXMACHIN ES	NUMBER	10	N
MAXQUEUES	MAXQUEUES	NUMBER	10	N
MAXACLGRO UPS	MAXACLGRO UPS	NUMBER	10	N
MAXGTT	MAXGTT	NUMBER	10	N
MAXCONV	MAXCONV	NUMBER	10	N
MAXBUFTYPE	MAXBUFTYPE	NUMBER	10	N
MAXBUFSTYP E	MAXBUFSTYP E	NUMBER	10	N
MAXDRT	MAXDRT	NUMBER	10	N
MAXRFT	MAXRFT	NUMBER	10	N
MAXRTDATA	MAXRTDATA	NUMBER	10	N
MAXSPDATA	MAXSPDATA	NUMBER	10	N
MAXTRANTI ME	MAXTRANTI ME	NUMBER	10	N
CMTRET	CMTRET	STRING	32	N

LDBAL	LDBAL	STRING	32	N
SYSTEM_ACCESS	SYSTEM_ACCESS	STRING	32	N
OPTIONS	OPTIONS	STRING	32	N
USIGNAL	USIGNAL	STRING	32	N
SECURITY	SECURITY	STRING	32	N
SSL_RENEGOTIATION	SSL_RENEGOTIATION	NUMBER	10	N
AUTHSVC	AUTHSVC	STRING	32	N
SCANUNIT	SCANUNIT	NUMBER	10	N
SANITYSCAN	SANITYSCAN	NUMBER	10	N
DBBLWAIT	DBBLWAIT	NUMBER	10	N
BBLQUERY	BBLQUERY	NUMBER	10	N
BLOCKTIME	BLOCKTIME	NUMBER	10	N
NOTIFY	NOTIFY	STRING	32	N
SEC_PRINCIPAL_NAME	SEC_PRINCIPAL_NAME	STRING	32	N
SEC_PRINCIPAL_LOCATION	SEC_PRINCIPAL_LOCATION	STRING	32	N
SEC_PRINCIPAL_PASSVAR	SEC_PRINCIPAL_PASSVAR	STRING	32	N
SIGNATURE_AHEAD	SIGNATURE_AHEAD	NUMBER	10	N
SIGNATURE_BEHIND	SIGNATURE_BEHIND	NUMBER	10	N

SIGNATURE_R EQUIRED	SIGNATURE_R EQUIRED	STRING	32	N
ENCRYPTION_ REQUIRED	ENCRYPTION_ REQUIRED	STRING	32	N

Tuxedo Machine

TARGET_TYPE			tuxedo_machine	
HISTORY_IGNORE			N	
TABLE NAME			TUXEDO_ECM_MACHINE	
UI_IGNORE			N	
COMPARE_IGNORE			N	
SINGLE_ROW			N	
COLUMN NAME	**DISPLAY NAME**	**TYPE**	**TYPE_FORMAT**	**IS_KEY**
ADDRESS	ADDRESS	STRING	64	N
LMID	LMID	STRING	64	Y
APPDIR	APPDIR	STRING	256	N
TUXCONFIG	TUXCONFIG	STRING	256	N
TUXDIR	TUXDIR	STRING	256	N
USERID	USERID	NUMBER	10	N
GID	GID	NUMBER	10	N
PERM	PERM	NUMBER	10	N
BRTHREADS	BRTHREADS	STRING	64	N
MAXACCESSE RS	MAXACCESSE RS	NUMBER	10	N

MAXWSCLIENTS	MAXWSCLIENTS	NUMBER	10	N
MAXACLCACHE	MAXACLCACHE	NUMBER	10	N
MAXCONV	MAXCONV	NUMBER	10	N
MAXPENDING BYTES	MAXPENDING BYTES	NUMBER	10	N
MAXGTT	MAXGTT	NUMBER	10	N
TYPE	TYPE	STRING	64	N
CMPLIMIT	CMPLIMIT	STRING	64	N
NETLOAD	CMPLIMIT	NUMBER	10	N
SPINCOUNT	SPINCOUNT	NUMBER	10	N
TLOGDEVICE	TLOGDEVICE	STRING	256	N
TLOGOFFSET	TLOGOFFSET	NUMBER	10	N
TLOGNAME	TLOGNAME	STRING	64	N
TLOGSIZE	TLOGSIZE	NUMBER	10	N
ULOGPFX	ULOGPFX	STRING	256	N
TUXOFFSET	TUXOFFSET	NUMBER	10	N
ENVFILE	ENVFILE	STRING	256	N
SEC_PRINCIPAL_NAME	SEC_PRINCIPAL_NAME	STRING	512	N
SEC_PRINCIPAL_LOCATION	SEC_PRINCIPAL_LOCATION	STRING	1024	N
SEC_PRINCIPAL_PASSVAR	SEC_PRINCIPAL_PASSVAR	STRING	64	N
SIGNATURE_REQUIRED	SIGNATURE_REQUIRED	STRING	64	N

ENCRYPTION_ REQUIRED	ENCRYPTION_ REQUIRED	STRING	64	N
SICACHEENTRI ESMAX	SICACHEENTRI ESMAX	STRING	64	N

Tuxedo Group

TARGET_TYPE			tuxedo_group	
UI_IGNORE			N	
HISTORY_IGNORE			N	
COMPARE_IGNORE			N	
TABLE NAME			TUXEDO_ECM_GROUPS	
SINGLE_ROW			N	
COLUMN NAME	**DISPLAY NAME**	**TYPE**	**TYPE_FORMAT**	**IS_KEY**
GROUPNAME	GROUPNAME	STRING	64	Y
LMID	LMID	STRING	64	N
GRPNO	GRPNO	NUMBER	10	N
TMSNAME	TMSNAME	STRING	256	N
ENVFILE	ENVFILE	STRING	256	N
TMSCOUNT	TMSCOUNT	NUMBER	10	N
SEC_PRINCIPAL_ NAME	SEC_PRINCIPAL_ NAME	STRING	512	N
SEC_PRINCIPAL_ LOCATION	SEC_PRINCIPAL_ LOCATION	STRING	1024	N
SEC_PRINCIPAL_ PASSVAR	SEC_PRINCIPAL_ PASSVAR	STRING	64	N

SIGNATURE_REQ UIRED	SIGNATURE_REQ UIRED	STRING	64	N
ENCRYPTION_RE QUIRED	ENCRYPTION_RE QUIRED	STRING	64	N
OPENINFO	OPENINFO	STRING	256	N
CLOSEINFO	CLOSEINFO	STRING	256	N
MRM	MRM	STRING	64	N

Tuxedo Server

TARGET_TYPE	tuxedo_server
UI_IGNORE	N
HISTORY_IGNORE	N
COMPARE_IGNORE	N
TABLE NAME	TUXEDO_ECM_SERVERS
SINGLE_ROW	N

COLUMN NAME	DISPLAY NAME	TYPE	TYPE_FORMAT	IS_KEY
AOUT	AOUT	STRING	256	N
SRVGRP	SRVGRP	STRING	64	Y
SRVID	SRVID	NUMBER	10	Y
CLOPT	CLOPT	STRING	1024	N
SEQUENCE	SEQUENCE	NUMBER	10	N
MIN	MIN	NUMBER	10	N
MAX	MAX	NUMBER	10	N
ENVFILE	ENVFILE	STRING	256	N

CONV	CONV	STRING	64	N
RQADDR	RQADDR	STRING	64	N
RQPERM	RQPERM	NUMBER	10	N
REPLYQ	REPLYQ	STRING	64	N
RPPERM	RPPERM	NUMBER	10	N
RCMD	RCMD	STRING	256	N
MAXGEN	MAXGEN	NUMBER	10	N
GRACE	GRACE	NUMBER	10	N
RESTART	RESTART	STRING	64	N
SYSTEM_ACCESS	SYSTEM_ACCESS	STRING	64	N
MAXDISPATCHTHREADS	MAXDISPATCHTHREADS	NUMBER	10	N
MINDISPATCHTHREADS	MINDISPATCHTHREADS	NUMBER	10	N
THREADSTACKSIZE	THREADSTACKSIZE	NUMBER	10	N
SEC_PRINCIPAL_NAME	SEC_PRINCIPAL_NAME	STRING	512	N
SEC_PRINCIPAL_LOCATION	SEC_PRINCIPAL_LOCATION	STRING	1024	N
SEC_PRINCIPAL_PASSVAR	SEC_PRINCIPAL_PASSVAR	STRING	64	N
SICACHEENTRIESMAX	SICACHEENTRIESMAX	STRING	64	N
CONCURR_STRATEGY	CONCURR_STRATEGY	STRING	64	N

Tuxedo Bridge

TARGET_TYPE			tuxedo_bridge	
UI_IGNORE			N	
HISTORY_IGNORE			N	
COMPARE_IGNORE			N	
TABLE NAME			TUXEDO_ECM_BRIDGE	
SINGLE_ROW			N	
COLUMN NAME	DISPLAY NAME	TYPE	TYPE_FORMAT	IS_KEY
LMID	LMID	STRING	64	Y
NADDR	NADDR	STRING	256	N
BRIDGE	BRIDGE	STRING	256	N
NLSADDR	NLSADDR	STRING	256	N
FADDR	FADDR	STRING	256	N
FRANGE	FRANGE	NUMBER	10	N
MINENCRYPT BITS	MINENCRYPT BITS	STRING	10	N
MAXENCRYPT BITS	MAXENCRYPT BITS	STRING	10	N

Tuxedo TMS

TARGET_TYPE	tuxedo_TMS
UI_IGNORE	N
HISTORY_IGNORE	N

COMPARE_IGNORE			N	
TABLE NAME			TUXEDO_ECM_TMS	
SINGLE_ROW			N	
COLUMN NAME	**DISPLAY NAME**	**TYPE**	**TYPE_FORMAT**	**IS_KEY**
GROUPNAME	GROUPNAME	STRING	64	N
GRPNO	GRPNO	NUMBER	10	N
LMID	LMID	STRING	64	N
TMSNAME	TMSNAME	STRING	256	Y
TMSCOUNT	TMSCOUNT	NUMBER	10	N
OPENINFO	OPENINFO	STRING	256	N
CLOSEINFO	CLOSEINFO	STRING	256	N

Note: Only the TMS configuration in the GROUPS section can be monitored from ECM perspective. TMS configuration in the RMS section cannot be monitored.

Tuxedo /Q

Queue Space

TARGET_TYPE	tuxedo_queue_server
UI_NAME	Tuxedo /Q QSPACE
UI_IGNORE	N
HISTORY_IGNORE	N
COMPARE_IGNORE	N
TABLE NAME	TUXEDO_ECM_SLASH_QUEUE_QSPACE
SINGLE_ROW	Y

MIB CLASS	T_APPQSPACE				
COLUMN NAME	**DISPLAY NAME**	**TYPE**	**TYPE_FORMAT**	**IS_KEY**	**MIB FIELD**
APPQSPACENAME	Queue Space Name	STRING	16	N	TA_APPQSPACENAME
QMCONFIG	Queue Space pathname	STRING	128	N	TA_QMCONFIG
LMID	LMID	STRING	32	N	TA_LMID
IPCKEY	IPC Key	NUMBER	10	N	TA_IPCKEY
ERRORQNAME	Error Queue Name	STRING	128	N	TA_ERRORQNAME
MAXACTIONS	Max Action Number	NUMBER	10	N	TA_MAXACTIONS
MAXCURSORS	Max Cursor Number	NUMBER	10	N	TA_MAXCURSORS
MAXHANDLES	Max Handle Number	NUMBER	10	N	TA_MAXHANDLES
MAXMSG	Max Message Number	NUMBER	10	N	TA_MAXMSG
MAXOWNERS	Max Owner Number	NUMBER	10	N	TA_MAXOWNERS
MAXPAGES	Max Page Number	NUMBER	10	N	TA_MAXPAGES
MAXPROC	Max Process Number	NUMBER	10	N	TA_MAXPROC
MAXQUEUES	Max Queue Number	NUMBER	10	N	TA_MAXQUEUES

MAXTMPQUEUES	Max Temp Queue Number	NUMBER	10	N	TA_MAXTMPQUEUES
MAXTRANS	Max Transaction Number	NUMBER	10	N	TA_MAXTRANS
MEMNONPERSIST	Non-persistent Messages Memory	STRING	32	N	TA_MEMNONPERSIST

Queue

TARGET_TYPE	tuxedo_queue_server				
UI_NAME	Tuxedo /Q QUEUE				
UI_IGNORE	N				
HISTORY_IGNORE	N				
COMPARE_IGNORE	N				
TABLE NAME	TUXEDO_ECM_SLASH_QUEUE_QUEUE				
SINGLE_ROW	N				
MIB CLASS	T_APPQ				
COLUMN NAME	**DISPLAY NAME**	**TYPE**	**TYPE_FORMAT**	**IS_KEY**	**MIB FIELD**
APPQNAME	Queue Name	STRING	128	Y	TA_APPQNAME
APPQSPACENAME	Queue Space Name	STRING	16	Y	TA_APPQSPACENAME
QMCONFIG	Queue Space pathname	STRING	128	Y	TA_QMCONFIG

| LMID | LMID | STRING | 32 | Y | TA_LMID |
| APPQORDER | App Queue Order | STRING | 64 | N | TA_APPQORDER |

Tuxedo Message Queue (OTMQ)

Queue Space

TARGET_TYPE	tuxedo_OTMQ_server
UI_NAME	Tuxedo OTMQ QSPACE
UI_IGNORE	N
HISTORY_IGNORE	N
COMPARE_IGNORE	N
TABLE NAME	TUXEDO_ECM_OTMQ_QSPACE
SINGLE_ROW	Y
MIB CLASS	T_OTMQSPACE

COLUMN NAME	DISPLAY NAME	TYPE	TYPE_FORMAT	IS_KEY	MIB FIELD
APPQSPACENAME	Queue Space Name	STRING	16	N	TA_APPQSPACENAME
QMCONFIG	Queue Space pathname	STRING	128	N	TA_QMCONFIG
LMID	LMID	STRING	32	N	TA_LMID
IPCKEY	IPC Key	NUMBER	10	N	TA_IPCKEY
FIRSTTMPQ	First temp queue number	NUMBER	10	N	TA_FIRSTTMPQ

ERRORQNAME	Error Queue Name	STRING	128	N	TA_ERROR QNAME
MAXACTIONS	Max Action Number	NUMBER	10	N	TA_MAXA CTIONS
MAXCURSORS	Max Cursor Number	NUMBER	10	N	TA_MAXC URSORS
MAXHANDLES	Max Handle Number	NUMBER	10	N	TA_MAXH ANDLES
MAXMSG	Max Message Number	NUMBER	10	N	TA_MAXM SG
MAXOWNERS	Max Owner Number	NUMBER	10	N	TA_MAXO WNERS
MAXPAGES	Max Page Number	NUMBER	10	N	TA_MAXP AGES
MAXPROC	Max Process Number	NUMBER	10	N	TA_MAXP ROC
MAXQUEUES	Max Queue Number	NUMBER	10	N	TA_MAXQ UEUES
MAXTMPQUEUES	Max Temp Queue Number	NUMBER	10	N	TA_MAXT MPQUEUE S
MAXTRANS	Max Transaction Number	NUMBER	10	N	TA_MAXT RANS
MEMNONPERSIST	Non-persiste nt Messages Memory	STRING	32	N	TA_MEMN ONPERSIST

Queue

TARGET_TYPE	tuxedo_OTMQ_server				
UI_NAME	Tuxedo OTMQ QUEUE				
UI_IGNORE	N				
HISTORY_IGNORE	N				
COMPARE_IGNORE	N				
TABLE NAME	TUXEDO_ECM_OTMQ_QUEUE				
SINGLE_ROW	N				
MIB CLASS	T_OTMQ				
COLUMN NAME	**DISPLAY NAME**	**TYPE**	**TYPE_FORMAT**	**IS_KEY**	**MIB FIELD**
APPQNAME	Queue Name	STRING	128	Y	TA_APPQNAME
APPQSPACENAME	Queue Space Name	STRING	16	Y	TA_APPQSPACENAME
QMCONFIG	Queue Space pathname	STRING	128	Y	TA_QMCONFIG
LMID	LMID	STRING	32	Y	TA_LMID
APPQORDER	App Queue Order	STRING	64	N	TA_APPQORDER
QUETYPE	Queue Type	STRING	64	N	TA_QUETYPE
ACTIVESTATE	Permanent Active	STRING	16	N	TA_ACTIVESTATE
PRIMQUE	Primary Queue	STRING	64	N	TA_PRIMQUE

QSpace Alias

TARGET_TYPE	tuxedo_OTMQ_server
UI_NAME	Tuxedo OTMQ QUEUE ALIAS
UI_IGNORE	N
HISTORY_IGNORE	N
COMPARE_IGNORE	N
TABLE NAME	TUXEDO_ECM_OTMQ_ALIAS
SINGLE_ROW	N
MIB CLASS	T_OTMQNAMING

COLUMN NAME	DISPLAY NAME	TYPE	TYPE_FORMAT	IS_KEY	MIB FIELD
APPQSPACENAME	Queue Space Name	STRING	32	Y	TA_APPQSPACENAME
APPQNAME	Queue Name	STRING	128	Y	TA_APPQNAME
OTMQALIAS	Queue Name Alias	STRING	1024	Y	TA_OTMQALIAS
OTMQALIASSCOPE	Queue Alias Scope	STRING	16	N	TA_OTMQALIASSCOPE

Properties.xml Schema

Properties.xml file is a group-level UBBCONFIG file which describes the relationship and parameters of all the servers within groups in an application package. It contains properties in the GROUPS, RMS, SERVERS, and SERVICES sections of a complete UBBCONFIG file and can have multiple groups.

The Properties.xml file is used to generate the final UBBCONFIG file when deploying the application package to a machine and its content can be modified at that time.

Listing 3-1 shows a complete XML schema of Properties.xml:

Listing 3-1   Properties.xml Schema

```
<?xml version="1.0" encoding="ISO-8859-1" ?>

<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">

  <xs:simpleType name="packagetype">

    <xs:restriction base="xs:string">

      <xs:pattern value="TUX"/>

    </xs:restriction>

  </xs:simpleType>

  <xs:simpleType name="stringtype">

    <xs:restriction base="xs:string"/>

  </xs:simpleType>

  <xs:simpleType name="stringtype249">

    <xs:restriction base="xs:string">

      <xs:maxLength value="64"/>

      <xs:pattern value="[^:*,]+\.(zip)"/>

    </xs:restriction>

  </xs:simpleType>

  <xs:simpleType name="inttype">

    <xs:restriction base="xs:positiveInteger"/>

  </xs:simpleType>

  <xs:simpleType name="rmidtype">

    <xs:restriction base="xs:integer">

      <xs:minInclusive value="1"/>
```

```
    <xs:maxInclusive value="31"/>

  </xs:restriction>

</xs:simpleType>

<xs:simpleType name="srvidtype">

  <xs:restriction base="xs:integer">

    <xs:minInclusive value="1"/>

    <xs:maxInclusive value="30000"/>

  </xs:restriction>

</xs:simpleType>

<xs:simpleType name="grpnotype">

  <xs:restriction base="xs:integer">

    <xs:minInclusive value="1"/>

    <xs:maxInclusive value="29999"/>

  </xs:restriction>

</xs:simpleType>

<xs:simpleType name="booleantype">

  <xs:restriction base="xs:string">

    <xs:pattern value="Y|N"/>

  </xs:restriction>

</xs:simpleType>

<xs:simpleType name="wordsizetype">

  <xs:restriction base="xs:string">

    <xs:pattern value="32|64"/>

  </xs:restriction>

</xs:simpleType>

<xs:simpleType name="buftypeconvtype">

  <xs:restriction base="xs:string">
```

```
      <xs:pattern value="XML2FML|XML2FML32"/>
    </xs:restriction>
  </xs:simpleType>
  <xs:simpleType name="versionselect">
    <xs:restriction base="xs:string">
      <xs:pattern value="1[1-9](\.[0-9]){3,4}(_VS([0-9]){4}){0,1}"/>
    </xs:restriction>
  </xs:simpleType>
  <xs:simpleType name="rqpermtype">
    <xs:restriction base="xs:string">
      <xs:pattern value="0?[0-7]{3}"/>
    </xs:restriction>
  </xs:simpleType>
  <xs:simpleType name="maxgentype">
    <xs:restriction base="xs:integer">
      <xs:minInclusive value="1"/>
      <xs:maxInclusive value="255"/>
    </xs:restriction>
  </xs:simpleType>
  <xs:simpleType name="gracetype">
    <xs:restriction base="xs:integer">
      <xs:minInclusive value="0"/>
      <xs:maxInclusive value="2147483647"/>
    </xs:restriction>
  </xs:simpleType>
  <xs:simpleType name="tsstype">
    <xs:restriction base="xs:integer">
```

```
      <xs:minInclusive value="0"/>

      <xs:maxInclusive value="2147483647"/>

    </xs:restriction>

  </xs:simpleType>

  <xs:simpleType name="trantimetype">

    <xs:restriction base="xs:integer">

      <xs:minInclusive value="0"/>

      <xs:maxInclusive value="2147483647"/>

    </xs:restriction>

  </xs:simpleType>

  <xs:simpleType name="maxdistype">

    <xs:restriction base="xs:integer">

      <xs:minInclusive value="1"/>

      <xs:maxInclusive value="999"/>

    </xs:restriction>

  </xs:simpleType>

  <xs:simpleType name="mindistype">

    <xs:restriction base="xs:integer">

      <xs:minInclusive value="0"/>

      <xs:maxInclusive value="999"/>

    </xs:restriction>

  </xs:simpleType>

  <xs:simpleType name="sicachetype">

    <xs:restriction base="xs:string">

      <xs:pattern
value="DEFAULT|0|[1-9][0-9]{0,3}|[12][0-9]{4}|3[01][0-9]{3}|32[0-6][0-9]{2
}|327[0-5][0-9]|3276[0-7]"/>

    </xs:restriction>
```

```
</xs:simpleType>

<xs:simpleType name="loadtype">

  <xs:restriction base="xs:integer">

    <xs:minInclusive value="1"/>

    <xs:maxInclusive value="32767"/>

  </xs:restriction>

</xs:simpleType>

<xs:simpleType name="blocktimetype">

  <xs:restriction base="xs:integer">

    <xs:minInclusive value="1"/>

    <xs:maxInclusive value="32767"/>

  </xs:restriction>

</xs:simpleType>

<xs:simpleType name="systemaccesstype">

  <xs:restriction base="xs:string">

    <xs:pattern value="FASTPATH|PROTECTED"/>

  </xs:restriction>

</xs:simpleType>

<xs:simpleType name="sessionroletype">

  <xs:restriction base="xs:string">

    <xs:pattern value="BEGIN|END|NONE"/>

  </xs:restriction>

</xs:simpleType>

<xs:simpleType name="affscopetype">

  <xs:restriction base="xs:string">

    <xs:pattern value="MACHINE|GROUP|SERVER"/>

  </xs:restriction>
```

```
    </xs:simpleType>

    <xs:simpleType name="affstricttype">

      <xs:restriction base="xs:string">

        <xs:pattern value="MANDATORY|PRECEDENT"/>

      </xs:restriction>

    </xs:simpleType>

    <xs:simpleType name="priotype">

      <xs:restriction base="xs:integer">

        <xs:minInclusive value="1"/>

        <xs:maxInclusive value="100"/>

      </xs:restriction>

    </xs:simpleType>

    <xs:simpleType name="tmscounttype">

      <xs:restriction base="xs:integer">

        <xs:minInclusive value="2"/>

        <xs:maxInclusive value="256"/>

      </xs:restriction>

    </xs:simpleType>

    <xs:simpleType name="svctotype">

      <xs:restriction base="xs:integer">

        <xs:minInclusive value="0"/>

      </xs:restriction>

    </xs:simpleType>

    <xs:simpleType name="openinfotype">

      <xs:restriction base="xs:string">

        <xs:minLength value="1"/>

        <xs:maxLength value="256"/>
```

```
      </xs:restriction>

    </xs:simpleType>

    <xs:simpleType name="clopttype">

      <xs:restriction base="xs:string">

        <xs:minLength value="1"/>

        <xs:maxLength value="1024"/>

      </xs:restriction>

    </xs:simpleType>

    <xs:simpleType name="rqaddrtype">

      <xs:restriction base="xs:string">

        <xs:minLength value="1"/>

        <xs:maxLength value="30"/>

      </xs:restriction>

    </xs:simpleType>

    <xs:simpleType name="minmaxtype">

      <xs:restriction base="xs:integer">

        <xs:minInclusive value="1"/>

        <xs:maxInclusive value="1000"/>

      </xs:restriction>

    </xs:simpleType>

    <xs:complexType name="servicesection">

      <xs:all>

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  maxOccurs="1"/>

        <xs:element name="BUFTYPECONV" type="buftypeconvtype" minOccurs="0"
                    maxOccurs="1"/>

       <xs:element name="SIGNATURE_REQUIRED" type="booleantype" minOccurs="0"
                    maxOccurs="1"/>
```

```
      <xs:element name="ENCRYPTION_REQUIRED" type="booleantype"
minOccurs="0"

                 maxOccurs="1"/>
      <xs:element name="LOAD" type="loadtype" minOccurs="0" maxOccurs="1"/>
      <xs:element name="PRIO" type="priotype" minOccurs="0" maxOccurs="1"/>
      <xs:element name="BLOCKTIME" type="blocktimetype" minOccurs="0"

                 maxOccurs="1"/>
      <xs:element name="SVCTIMEOUT" type="svctotype" minOccurs="0"

                 maxOccurs="1"/>
      <xs:element name="SESSIONROLE" type="sessionroletype" minOccurs="0"

                 maxOccurs="1"/>
      <xs:element name="AFFINITYSCOPE" type="affscopetype" minOccurs="0"

                 maxOccurs="1"/>
      <xs:element name="AFFINITYSTRICT" type="affstricttype" minOccurs="0"

                 maxOccurs="1"/>
      <xs:element name="AUTOTRAN" type="booleantype" minOccurs="0"

                 maxOccurs="1"/>
      <xs:element name="TRANTIME" type="trantimetype" minOccurs="0"

                 maxOccurs="1"/>
   </xs:all>
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  </xs:complexType>
  <xs:complexType name="serversection">
   <xs:all>
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maxOccurs="1"/>
      <xs:element name="RCMD" type="stringtype" minOccurs="0"
maxOccurs="1"/>
```

```
     <xs:element name="CONV" type="booleantype" minOccurs="0"
maxOccurs="1"/>
      <xs:element name="CLOPT" type="clopttype" minOccurs="0"
maxOccurs="1"/>
      <xs:element name="SEQUENCE" type="inttype" minOccurs="0"
maxOccurs="1"/>
      <xs:element name="RQADDR" type="rqaddrtype" minOccurs="0"
maxOccurs="1"/>
    <xs:element name="MIN" type="minmaxtype" minOccurs="0" maxOccurs="1"/>
    <xs:element name="MAX" type="minmaxtype" minOccurs="0" maxOccurs="1"/>
      <xs:element name="RQPERM" type="rqpermtype" minOccurs="0"
maxOccurs="1"/>
      <xs:element name="REPLYQ" type="booleantype" minOccurs="0"
maxOccurs="1"/>
      <xs:element name="RPPERM" type="rqpermtype" minOccurs="0"
maxOccurs="1"/>
      <xs:element name="MAXGEN" type="maxgentype" minOccurs="0"
maxOccurs="1"/>
      <xs:element name="GRACE" type="gracetype" minOccurs="0"
maxOccurs="1"/>
     <xs:element name="RESTART" type="booleantype" minOccurs="0"
                 maxOccurs="1"/>
    <xs:element name="SYSTEM_ACCESS" type="systemaccesstype" minOccurs="0"
                 maxOccurs="1"/>
     <xs:element name="MAXDISPATCHTHREADS" type="maxdistype" minOccurs="0"
                 maxOccurs="1"/>
    <xs:element name="MINDISPATCHTHREADS" type="mindistype" minOccurs="0"
                 maxOccurs="1"/>
     <xs:element name="THREADSTACKSIZE" type="tsstype" minOccurs="0"
                 maxOccurs="1"/>
```

```
      <xs:element name="SICACHEENTRIESMAX" type="sicachetype" minOccurs="0"
                  maxOccurs="1"/>
   </xs:all>
   <xs:attribute name="AOUT" type="stringtype" use="required"/>
   <xs:attribute name="SRVID" type="srvidtype" use="required"/>
 </xs:complexType>
 <xs:complexType name="rmssection">
   <xs:all>
     <xs:element name="TMSNAME" type="stringtype" minOccurs="0"
maxOccurs="1"/>
     <xs:element name="OPENINFO" type="openinfotype" minOccurs="0"
                  maxOccurs="1"/>
     <xs:element name="CLOSEINFO" type="openinfotype" minOccurs="0"
                  maxOccurs="1"/>
     <xs:element name="TMSCOUNT" type="tmscounttype" minOccurs="0"
                  maxOccurs="1"/>
     <xs:element name="AUTO" type="booleantype" minOccurs="0"
maxOccurs="1"/>
   </xs:all>
   <xs:attribute name="RMSNAME" type="stringtype" use="required"/>
   <xs:attribute name="RMID" type="rmidtype" use="required"/>
 </xs:complexType>
 <xs:complexType name="servicesections">
   <xs:sequence>
     <xs:element name="ServiceSection" type="servicesection" minOccurs="1"
                  maxOccurs="unbounded"/>
   </xs:sequence>
 </xs:complexType>
```

```
<xs:complexType name="serversections">

  <xs:sequence>

    <xs:element name="ServerSection" type="serversection" minOccurs="1"

                maxOccurs="unbounded"/>

  </xs:sequence>

</xs:complexType>

<xs:complexType name="rmssections">

  <xs:sequence>

    <xs:element name="RmsSection" type="rmssection" minOccurs="1"

                maxOccurs="unbounded"/>

  </xs:sequence>

</xs:complexType>

<xs:complexType name="groupsection">

  <xs:all>

    <xs:element name="ENVFILE" type="stringtype" minOccurs="0"
maxOccurs="1"/>

    <xs:element name="TMSNAME" type="stringtype" minOccurs="0"
maxOccurs="1"/>

    <xs:element name="MRM" type="booleantype" minOccurs="0"
maxOccurs="1"/>

   <xs:element name="SIGNATURE_REQUIRED" type="booleantype" minOccurs="0"

                maxOccurs="1"/>

    <xs:element name="ENCRYPTION_REQUIRED" type="booleantype"
minOccurs="0"

                maxOccurs="1"/>

    <xs:element name="OPENINFO" type="openinfotype" minOccurs="0"

                maxOccurs="1"/>

    <xs:element name="CLOSEINFO" type="openinfotype" minOccurs="0"
```

```
                   maxOccurs="1"/>
      <xs:element name="TMSCOUNT" type="tmscounttype" minOccurs="0"
                   maxOccurs="1"/>
      <xs:element name="RmsSections" type="rmssections" minOccurs="0"
                   maxOccurs="1"/>
     <xs:element name="ServerSections" type="serversections" minOccurs="0"
                   maxOccurs="1"/>
      <xs:element name="ServiceSections" type="servicesections"
minOccurs="0"
                   maxOccurs="1"/>
   </xs:all>
   <xs:attribute name="GROUPNAME" type="stringtype" use="required"/>
   <xs:attribute name="GRPNO" type="grpnotype" use="required"/>
 </xs:complexType>
 <xs:complexType name="groups">
   <xs:sequence>
     <xs:element name="GroupSection" type="groupsection" minOccurs="1"
                   maxOccurs="unbounded"/>
   </xs:sequence>
 </xs:complexType>
 <xs:complexType name="applicationproperties">
   <xs:all>
     <xs:element name="PackageName" type="stringtype249" minOccurs="1"
                   maxOccurs="1"/>
     <xs:element name="TuxedoVersion" type="versionselect" minOccurs="1"
                   maxOccurs="1"/>
     <xs:element name="SupportedOS" type="stringtype" minOccurs="1"
                   maxOccurs="1"/>
```

```
      <xs:element name="TuxedoWordSize" type="wordsizetype" minOccurs="1"
                maxOccurs="1"/>
      <xs:element name="MachineArch" type="stringtype" minOccurs="1"
                maxOccurs="1"/>
      <xs:element name="LibPath" type="stringtype" minOccurs="0"
maxOccurs="1"/>
       <xs:element name="Groups" type="groups" minOccurs="1" maxOccurs="1"/>
    </xs:all>
    <xs:attribute name="type" type="packagetype" use="optional"/>
  </xs:complexType>
  <xs:element name="ApplicationProperties" type="applicationproperties"/>
</xs:schema>
```

MBeans and JMX Operations

This chapter lists all the MBeans and related operations in JMX Agent.

- Admin MBean

- Tuxedo Domain MBean

- Tuxedo Machine MBean

- Tuxedo Group MBean

- Tuxedo Server MBean

- Tuxedo System Server Mbean

- Tuxedo Bridge MBean

- Tuxedo TMS Mbean

- Tuxedo /T Domain Gateway

- Tuxedo Mainframe Adapter Gateway for SNA

- Tuxedo Mainframe Adapter Gateway for TCP

- Tuxedo Web Service Gateway

- Tuxedo Workstation Listener

- Tuxedo Jolt Listener

- Tuxedo Event Broker

- Tuxedo Queue Server

- Tuxedo QTMQ Server

- Tuxedo ART Batch System Target

Admin MBean

MBean Name

DefaultJMXDomain:type=adminBean

Operations

Boot Domain

Change the domain to active state.

Note: You must connect the JMX Agent in the master machine, and add NONTUXAUTH in the credential list. After it is booted successfully, you must reconnect the JMX Agent without NONTUXAUTH in the credential list to invoke other JMX methods.

Input:

tuxconfig: The tuxconfig path of master machine.
onlyAppServers: All servers listed in the SERVERS section are booted
onlyAdminServers: All administrative servers are booted.

Signature:

```
void bootDomain(String tuxconfig, Boolean onlyAppServers,
boolean onlyAdminServers) throws USGException, SYSException,
TUXException
```

Shutdown Domain

Make the domain to deactive state. When onlyAppServers and onlyAdminServers are false, this method stops all administrative, TMS, and gateway servers, and servers listed in the SERVERS section of the configuration file named by the TUXCONFIG environment variable, and removes the IPC resources associated with them. For each group, all servers in the SERVERS section, if any, are shut down, followed by any associated gateway servers (for foreign groups) and TMS servers. Administrative servers are shut down last.

Application servers without SEQUENCE parameters are shut down first in reverse order of the server entries in the configuration file, followed by servers with SEQUENCE parameters that are shut down from high to low sequence number. If two or more servers in the SERVERS section of the configuration file have the same SEQUENCE parameter,

this method may shut down these servers in parallel. Each entry in the SERVERS section may have an optional MIN and MAX parameter.

Note: Must connect the JMX Agent in the master machine.

Input:

tuxconfig: The tuxconfig path of master machine.
onlyAppServers: All servers listed in the SERVERS section are shut down.
onlyAdminServers: All administrative servers are shut down.
delay: Suspends all selected servers immediately and waits for shutdown confirmation for only delay seconds before forcing the server to shut down by sending a SIGTERM and then a SIGKILL signal to the server.
signal: {null|""|TERM|KILL}. null|"" is treated as TERM.
force : Shuts down BBLs even if clients are still attached.

Signature:

```
void shutdownDomain(String tuxconfig, Boolean onlyAppServers,
boolean onlyAdminServers, Integer delay, String signal, boolean
force) throws USGException, SYSException, TUXException,
JMXConnectionException
```

Boot Machine

For each group whose associated LMID parameter is lmid, all TMS and gateway servers associated with the group are booted and all servers in the SERVERS section associated with those groups are executed.

Note: Must connect the JMX Agent in the master machine, and add "NONTUXAUTH" in the credential list. After it is booted successfully, you must reconnect the JMX Agent without NONTUXAUTH in the credential list to invoke other JMX methods.

Input

tuxconfig: The tuxconfig path of master machine.
lmid: The lmid of machine.
isBootBBL: Specify whether the BBL should be started on with logical name lmid.

Signature

```
void bootMachine(String tuxconfig, String lmid, Boolean
isBootBBL) throws USGException, SYSException, TUXException
```

Shutdown Machine

For each group whose associated LMID parameter is lmid, all servers in the SERVERS section associated with the group are shut down, followed by any TMS and gateway servers associated with the group.

Note: Must connect the JMX Agent in the master machine.

Input:

tuxconfig: The tuxconfig path of master machine.

lmid: The lmid of machine.

delay: Suspends all selected servers immediately and waits for shutdown confirmation for only delay seconds before forcing the server to shut down by sending a SIGTERM and then a SIGKILL signal to the server.

signal: `{null|""|TERM|KILL}`. null|"" is treated as TERM.

force : Shuts down BBLs even if clients are still attached.

Signature

```
void shutdownMachine (String tuxconfig, String lmid, Integer
delay, String signal, Boolean force) throws USGException,
SYSException,  JMXConnectionException, TUXException
```

Boot Group

All TMS and gateway servers for the group whose SRVGRP parameter is grpname are started, followed by all servers in the SERVERS section associated with that group. TMS servers are started based on the TMSNAME and TMSCOUNT parameters for the group entry.

Note: Must connect the JMX Agent in the master machine.

Input

tuxconfig: The tuxconfig path of the machine which group is located in.

grpname: The name of Tuxedo group.

Signature

```
void bootGroup(String tuxconfig, String grpname)throws
USGException, SYSException, TUXException
```

Shutdown Group

All servers in the SERVERS section associated with the specified group (that is, for which the SRVGRP parameter is set to grpname) are shut down, followed by all TMS and gateway servers for the group. TMS servers are shut down based on the TMSNAME and TMSCOUNT parameters for the group entry. For a foreign group, the gateway servers for the associated entry in the HOST section are shut down based on GATENAME and GATECOUNT. Shutting down a gateway implies not only that the process itself is stopped; it also implies that the administrative service for the gateway and all advertised foreign services are unadvertised.

Note: Must connect the JMX Agent in the master machine.

Input

tuxconfig: The tuxconfig path of the machine which group is located in.

grpname: The name of group.

delay: Suspends all selected servers immediately and waits for shutdown confirmation for only delay seconds before forcing the server to shut down by sending a SIGTERM and then a SIGKILL signal to the server. Because the SIGKILL signal cannot be trapped, any process that receives it is terminated immediately, regardless of the code being executed by the process at that time. Such behavior may cause structural damage to the bulletin board if the process being stopped was updating the bulletin board when it was terminated.

signal:{null|""|TERM|KILL}. null|"" is treated as TERM.

Signature

```
void shutdownGroup(String tuxconfig, String grpname, Integer
delay, String signal)throws USGException, SYSException,
TUXException,  JMXConnectionException
```

Boot Server

All servers in the SERVERS section whose SRVID parameter is serverID are executed. Note: Must connect the JMX Agent in the master machine.

Input

tuxconfig: The tuxconfig path of the machine which group is located in.
groupname: The namename of Tuxedo group.
serverID: The SVRID

Signature

```
void bootServer(String tuxconfig,  String groupname,  Integer
serverID) throws USGException, SYSException, TUXException
```

Activate All Servers with Same Name

All servers in the SERVERS section are executed by server name and MIN value. Servers with a MIN=0 value are not executed.
Note: Must connect the JMX Agent in the master machine.

Input

tuxconfig: The tuxconfig path of the machine which the group is located in.
aout: The Tuxedo server name

Signature

```
void bootServer(String tuxconfig, String aout)throws
USGException, SYSException, TUXException
```

Shutdown Server

All servers in the SERVERS section for which the SRVID parameter is set to serverID are shut down. Do not enter a value for SRVID greater than 30,000; this indicates system processes (that is, TMSs or gateway servers) that should only be shut down via the shutdownMachine or shutdownGroup.
Note: Must connect the JMX Agent in the master machine.

Input

tuxconfig: The tuxconfig path of the machine which the server is located in.
grpname: The name of Tuxedo group.
serverid: The SVRID

delay: Suspends all selected servers immediately and waits for shutdown confirmation for only delay seconds before forcing the server to shut down by sending a SIGTERM and then a SIGKILL signal to the server. Because the SIGKILL signal cannot be trapped, any process that receives it is terminated immediately, regardless of the code being executed by the process at that time. Such behavior may cause structural damage to the bulletin board if the process being stopped was updating the bulletin board when it was terminated.

signal:`{null|""|TERM|KILL}`. null|"" is treated as TERM.

Signature

```
void shutdownServer(String tuxconfig, String groupname,  Integer
serverId, Integer delay, String signal)throws USGException,
SYSException, TUXException
```

Shutdown All the Servers with Same Name

All servers listed in the SERVERS section with the name aout are shut down. This method can also be used to shut down System server, TMS and gateway servers.
Note: Must connect the JMX Agent in the master machine.

Input

tuxconfig: The tuxconfig path of the machine which group is located in.
aout: The Tuxedo server name.

delay: Suspends all selected servers immediately and waits for shutdown confirmation for only delay seconds before forcing the server to shut down by sending a SIGTERM and then a SIGKILL signal to the server. Because the SIGKILL signal cannot be trapped, any process that receives it is terminated immediately, regardless of the code being executed by the process at that time. Such behavior may cause structural damage to the bulletin board if the process being stopped was updating the bulletin board when it was terminated.

signal:`{null|""|TERM|KILL}`. null|"" is treated as TERM.

Signature
```
void shutdownServer(String tuxconfig, String aout, Integer
delay, String signal)throws USGException, SYSException,
TUXException
```

Tuxedo Domain MBean

MBean Name

```
"<DOMAINID>_<IPCKEY>:type=tuxedo_domain".
```

Operations

CreateMachine

Create a Tuxedo machine instance and an MBean with tuxedo_machine type. The machine target will not be booted after the creation action. You need to create the bridge target then boot the machine.

Input:

pmid The machine pmid.
lmid The machine lmid.
tuxconfig The machine tuxconfig.
tuxdir The Tuxedo installation directory in the created machine.
appdir The application directory for the machine application.

Signature
```
void createMachine (String pmid, String lmid, String tuxconfig,
String tuxdir, String appdir) throws MBeanException,
SYSException,TUXException, JMXConnectionException, USGException
```

GetParameters

Get values for the attributes in T_DOMAIN which has the same IPCKEY with this MBean.

Signature
```
CompositeData getParameters() throws SYSException,
JMXConnectionException, TUXException, OpenDataException;
```

GetParameter

Get value for the attribute in T_DOMAIN which has the same IPCKEY with this MBean.

Input:

parameterName: The MIB attribute name.

Signature
```
Object getParameter(String parameterName) throws USGException,
TUXException, SYSException, JMXConnectionException;
```

SetParameter

Set value for the attribute in T_DOMAIN which has the same IPCKEY with this MBean.

Input:

parameterName The MIB attribute name.
parameterValue The MIB attribute value.

Signature
```
void setParameter(String parameterName, Object parameterValue)
throws TUXException, USGException, SYSException,
JMXConnectionException, MBeanException;
```

SetParameters

Set value for the attributes in T_DOMAIN which has the same IPCKEY with this MBean.

Input

parameters: The list of parameters and values in the format of CompositeData. The itemNames for parameters is the MIB attributes name which are start with "TA_". The itemTypes is the OpenType corresponding to the MIB attributes type. And the values are the parameter's value.
Following is the type mapping between OpenType and MIB Field Type.

MIB attribute Type	OpenType
string	String
int	Integer
short	Short
long	Long
carray	String

Signature
```
Object setParameters(CompositeData parameters) throws
USGException, SYSException, TUXException,
JMXConnectionException, MBeanException;
```

Get Routings

Get the routings from T_ROUTING class.

Signature

TabularData getRoutings () throws SYSException, TUXException,
JMXConnectionException;

Add Routing

Add routing to T_ROUTING class. Please make sure the MAXRFT and MAXDRT is
validate for add routing.

Input:

Parameter Name	Corresponding MIB Attribute
routingName	TA_ROUTINGNAME
routingType	TA_ROUTINGTYPE
bufType	TA_BUFTYPE
field	TA_FIELD
ranges	TA_RANGES

Signature

void addRouting(String routingName, String routingType, String bufType, String
field, String ranges) throws SYSException, TUXException,
JMXConnectionException, OpenDataException;

Delete Routing

Delete routing from this domain.

Input:

Parameter Name	Corresponding MIB Attribute
routingName	TA_ROUTINGNAME
bufType	TA_BUFTYPE
field	TA_FIELD
type	TA_TYPE

Signature

void deleteRouting(String routingName, String buftype , String
field, String type) throws SYSException, TUXException,
JMXConnectionException;

Set Routing Parameters

Set the attributes value in T_ROUTING.

Input:

Parameter Name	Corresponding MIB Attribute
routingName	TA_ROUTINGNAME
bufType	TA_BUFTYPE
field	TA_FIELD
type	TA_TYPE
parameters	The list of MIB attributes and values in the format of CompositeData.

Signature

```
void setRoutingParameters (String routingName, String buftype,
String field, String type,  CompositeData parameters) throws
USGException, TUXException, JMXConnectionException,
SYSException;
```

Set Routing Parameter

Set the attribute value in T_ROUTING.

Input:

Parameter Name	Corresponding MIB Attribute
routingName	TA_ROUTINGNAME
bufType	TA_BUFTYPE
field	TA_FIELD
type	TA_TYPE
parameterName	The MIB attribute Name
parameterValue	The MIB attribute value

Signature
```
void setRoutingParameter(String routingName, String buftype,
String field, String type, String parameterName, String
parameterValue) throws JMXConnectionException, SYSException,
USGException, TUXException;
```

Get Routing Parameter

Get the attribute's value in T_ROUTING.

Input:

Parameter Name	Corresponding MIB Attribute
routingName	TA_ROUTINGNAME
bufType	TA_BUFTYPE
field	TA_FIELD
type	TA_TYPE
parameterName	The MIB attribute Name

Signature:
```
Object getRoutingParameter(String routingName, String buftype,
String field, String type, String parameterName) USGException,
TUXException, JMXConnectionException, SYSException;
```

Swap

Swap the master and backup which is configured in MASTER parameter.

Signature
```
void swap() throws TUXException,
JMXConnectionException,SYSException
```

Tuxedo Machine MBean

MBean Name
```
"<DOMAINID>_<IPCKEY>:type= tuxedo_machine,LMID=<LMID>".
```

Operations

Create Group

Create a Tuxedo group instance and an MBean with tuxedo_group type. The created target is not active. You need to invoke the active method for the activation.

Signature

```
void createGroup (String groupName, Integer groupNo) throws
SYSException, MBeanException, USGException, TUXException,
JMXConnectionException
```

Create Bridge

Create a Tuxedo Bridge instance and an MBean with tuxedo_bridge type. The created target is not active. You need to invoke the active method for the activation.

Signature

```
void createBridge (String lmid, String naddr, String nlsaddr)
throws SYSException, MBeanException, USGException,
TUXException, JMXConnectionException
```

GetParameter

Get value for the attribute in T_MACHINE which has the same LMID with this MBean.

Input:

parameterName: The MIB attribute name.

Signature

Object getParameter(String parameterName) throws USGException,
TUXException, SYSException, JMXConnectionException;

GetParameters

Get value for all attributes in T_ MACHINE which has the same LMID with this MBean.

Signature

```
CompositeData getParameters() throws SYSException,
JMXConnectionException, TUXException, OpenDataException;
```

SetParameter

Set value for the attribute in T_ MACHINE which has the same LMID with this MBean.

Input:

parameterName The MIB attribute name.
parameterValue The MIB attribute value.

Signature
```
void setParameter(String parameterName, String parameterValue)
throws TUXException, USGException, SYSException,
JMXConnectionException, MBeanException;
```

SetParameters

Set value for the attributes in T_MACHINE which has the same LMID with this MBean.

Input

Refer to the input for "SetParameters" on page 4-8.

Signature
```
Object setParameters(CompositeData parameters) throws
USGException, SYSException, TUXException,
JMXConnectionException, MBeanException;
```

deleteRecursively

Delete all the Tuxedo instances and child instances associated with the MBean

Signature
```
void deleteRecursively() throws MBeanException, TUXException,
JMXConnectionException, SYSException, USGException;
```

Delete

Delete the Tuxedo instances associated with this MBean.

Note: All MBeans which located at the same machine with this target must be deleted first.

Signature
```
void delete() throws TUXException, USGException, SYSException,
JMXConnectionException, MBeanException;
```

Migrate

All servers running on the machine are migrated to their alternate location. RESTART=Y must be configured in server section for all the servers which need be migrated.

Signature
```
void migrate() throws Exception
```

Clean

Initiate cleanup/scanning activities on and relating to the indicated machine. If there are dead clients or servers on the machine, they will be detected at this time. If the machine has been partitioned from the application MASTER site, global bulletin board entries for that machine will be removed. This combination is allowed when the application is in the ACTive state and the machine is in either the ACTive or PARtitioned state. Successful

return for a non-partitioned machine leaves the state unchanged. Successful return for a partitioned machine leaves the object in the INActive state.

Signature

```
void clean() throws MBeanException, JMXConnectionException,
TUXException, SYSException
```

Get Native Clients

Get all the native clients which are running on the machine.

Output

TablarData columns:

Column Name	Note
TA_CLIENTID	Key
TA_CLTNAME	
TA_USRNAME	
TA_TIMESTART	
TA_IDLETIME	
TA_STATE	

Signature

```
TabularData getNativeClients() throws TUXException,
JMXConnectionException, SYSException
```

Suspend

Suspend the client from making service requests (tpcall() or tpacall()), initiating conversations (tpconnect()), beginning transactions (tpbegin()), and enqueuing new requests (tpenqueue()). Clients within a transaction will be permitted to make these calls until they abort or commit the current transaction, at which time they will become suspended. Invocations of these routines will result in a TPESYSTEM error return and a system log message being generated indicating the situation. State change allowed only when in the ACTive state. Successful return leaves the object in the SUSpended state.

Input

clientId: Client identifier.

Signature

```
void suspend(String clientId) throws TUXException, SYSException,
JMXConnectionException
```

Resume

Change the client`s state from "SUSpended" to "ACTive". Successful return leaves the object in the "ACTive" state.

Input

clientID: Client identifier.

Signature

```
void resume(String clientId) throws TUXException, SYSException,
JMXConnectionException
```

Kill Client

Abortively deactivate the client. State change allowed only when in the "ACTive" or "SUSpended" state. Limitation: The system may not be able to kill the client due to platform or signaling restrictions. In this case, a native client will be abortively terminated at its next access to ATMI.

Input

clientId: Client identifier.

Signature

```
void killClient(String clientId) throws TUXException,
SYSException, JMXConnectionException
```

Get Transactions

Get all the transactions which belong to the machine. Note that transaction attributes are primarily kept local to a site and coordinated via common transaction identifiers by transaction management servers (TMSs).

Output

TablarData columns:

Column Name	Note
TA_COORDLMID	
TA_TPTRANID	Key
TA_XID	

Column Name	Note
TA_STATE	
TA_TIMEOUT	
TA_GRPCOUNT	
TA_GRPINDEX	
TA_GRPNO	
TA_GSTATE	

Signature

```
TabularData getTransations() throws TUXException,
JMXConnectionException, SYSException;
```

Abort Transaction

Abort the transaction for the application. State change allowed only when in the ACTive, ABortonlY, or COMcalled states. Successful return leaves the transaction in the ABorteD state.

Input

TPTRANID: (TA_TPTRANID)Transaction identifier as returned from tpsuspend() mapped to a string representation.
XID: TA_XID Transaction identifier as returned from tx_info() mapped to a string representation.

Signature

```
void abortTransaction(StringTPTRANID, String XID) throws
TUXException, JMXConnectionException, SYSException
```

Get ULOGs

Get ULOGs in the machine.

Input

date: Date of user log file found or to be accessed. In the format of MMDDYY
startTime: The time of the user log message represented by this object. The value of this attribute is formed by multiplying the hour by 10,000, adding to that the minute multiplied by 100, and finally adding in the seconds. When used as a key field, this attribute represents the start of the time range to be accessed for messages. In the format of hhmmss

endTime: The latest time to be considered when accessing this userlog file. In the format of hhmmss

line: The line number of the user log message returned/requested within the user log file. When used as a key field for retrieval, this value indicates the starting line within the log file.

ulogCat: Catalog name from which the message was derived, if any.

serverity: Severity of message, if any.

totalLine: Total Line number for request.

Output

Column Name	Note
INDEX	Key
TA_MMDDYY	
TA_ULOGTIME	
TA_ULOGLINE	
TA_ULOGMSG	
TA_TPTRANID	
TA_XID	
TA_PID	
TA_THREADID	
TA_CONTEXTID	
TA_SEVERITY	
TA_ULOGCAT	
TA_ULOGMSGNUM	
TA_ULOGPROCNM	

Signature

TabularData getULog(Integer date, Integer startTime, Integer endTime, Integer line,String ulogCat, String serverity, Integer totalLine)throws JMXConnectionException, TUXException, SYSException

Tuxedo Group MBean

MBean Name

"<DOMAINID>_<IPCKEY>:type=tuxedo_group,group_name=<GROUPNAME>".

Operations

Create Server

Create a Tuxedo Server instance and an MBean with
tuxedo_server/tuxedo_system_server/ tuxedo_domain_gateway/ tuxedo_event_broker/
tuxedo_jolt_listener/ tuxedo_TMA_gateway_SNA/ tuxedo_TMA_gateway_TCP/
tuxedo_LMS/ tuxedo_webservice_gateway/ tuxedo_workstation_listener type depends
on the aoutserver name.

Signature

```
void createServer (String aout, Integer srvID) throws
SYSException, MBeanException, USGException, TUXException,
JMXConnectionException;
```

GetParameter

Get value for the attribute in T_GROUP which has the same group name with this MBean.

Input:

parameterName: The MIB attribute name.

Signature

```
Object getParameter(String parameterName) throws USGException,
TUXException, SYSException, JMXConnectionException;
```

GetParameters

Get values for all attribute in T_ GROUP which has the same group name with this
MBean.

Signature

```
CompositeData getParameters() throws SYSException,
JMXConnectionException, TUXException, OpenDataException;
```

SetParameter

Set value for the attribute in T_ GROUP which has the same group name with this MBean.

Input:

parameterName: The MIB attribute name.
parameterValue: The MIB attribute value.

Signature:

```
void setParameter(String parameterName, String parameterValue)
throws TUXException, USGException, SYSException,
JMXConnectionException, MBeanException;
```

SetParameters

Set value for the attributes in T_ GROUP which has the same group name with this MBean.

Input

Refer to the input for "SetParameters" on page 4-8.

Signature

```
Object setParameters(CompositeData parameters) throws
USGException, SYSException, TUXException,
JMXConnectionException, MBeanException;
```

CreateTMS

Create TMS.
Input

Parameter Name	Corresponding MIB Attribute	Notes
rmsName	TA_RMSNAME	Those fields can be set to null for the TMS configured on Group section.
rmid	TA_RMID	
tmsName	TA_TMSNAME	

Signature

```
void createTMS (String rmsName, Integer rmid, String tmsName);
```

deleteRecursively

Delete all the Tuxedo instances and Child instances associated with the MBean

Signature

```
void deleteRecursively() throws MBeanException, TUXException,
JMXConnectionException, SYSException, USGException;
```

Delete

Delete all Tuxedo instances associated with the MBean.

Note: All MBeans located at this group must be deleted first.

Signature

```
void delete() throws TUXException, USGException, SYSException,
JMXConnectionException, MBeanException;
```

Migrate

If the configuration file specifies the MIGRATE option and an alternate location for the group, all servers in the group are migrated to the alternate location.

Note: The RESTART=Y must be configured in ubbconfig for all the servers which need migration.

Signature

```
void migrate()throws Exception
```

Tuxedo Server MBean

MBean Name

```
"<DOMAINID>_<IPCKEY>: tuxedo_server,group_name=< SRVGRP>, SRVID=<SRVID>".
```

Operations

GetParameter

Get value for the attribute in T_SERVER which has the same SRVID and SRVGRP with this MBean.

Input:

parameterName: The MIB attribute name. For example: "TA_MAX".

Signature

```
Object getParameter(String parameterName) throws USGException,
TUXException, SYSException, JMXConnectionException;
```

GetParameters

Get all attribute and values in T_ SERVER with the MBean's SRVID and SRVGRP.

Signature

```
CompositeData getParameters() throws SYSException,
JMXConnectionException, TUXException, OpenDataException;
```

SetParameter

Set value for the attribute in T_ SERVER which has the same SRVID and SRVGRP with this MBean.

Input:

parameterName: The MIB attribute name.
parameterValue: The MIB attribute value.

Signature:

```
void setParameter(String parameterName, String parameterValue)
throws TUXException, USGException, SYSException,
JMXConnectionException, MBeanException;
```

SetParameters

Set value for the attributes in T_ SERVER which has the same SRVID and SRVGRP with this MBean.

Input

Refer to the input for "SetParameters" on page 4-8.

Signature

```
Object setParameters(CompositeData parameters) throws
USGException, SYSException, TUXException,
JMXConnectionException, MBeanException;
```

Delete

Delete both the MBean and all Tuxedo instances associated with the MBean.

Signature

```
void delete() throws TUXException, USGException, SYSException,
JMXConnectionException, MBeanException;
```

Set Service parameter

Set value for the attribute in T_ SERVICE which has the same SRVID and SRVGRP with this MBean.

Input

serviceName: name of service.

parameterName: The MIB attribute name.

parameterValue: The MIB attribute value.

Signature

```
void setServiceParameter(String serviceName, String
parameterName, String parameterValue) throws TUXException,
SYSException, JMXConnectionException, USGException;
```

Get Service Parameter

Get the value of attribute in T_ SERVICE which has the same SRVID and SRVGRP with this MBean.

Input

serviceName: name of service.

parameterName: The MIB attribute name.

Signature

```
Object getServiceParameter(String serviceName, String
parameterName) throws MBeanException, TUXException,
JMXConnectionException,SYSException;
```

Delete Service

Delete service from T_SERVICE.

Input

serviceName: name of Tuxedo service.

Signature

```
Object deleteService (String serviceName) throws SYSException,
TUXException, USGException, JMXConnectionException,
MBeanException;
```

Get Service

Get all the services from T_SERVICE

Output

TablarData columns:

Column Name	Note
TA_ROUTINGNAME	
TA_BUFTYPE	
TA_STATE	
TA_AUTOTRAN	
TA_LOAD	
TA_PRIO	
TA_SVCTIMEOUT	
TA_TRANTIME	
TA_SVCTYPE	
TA_SVCRNAM	

Signature

```
TabularData getServices()throws SYSException, TUXException,
JMXConnectionException
```

Suspend Service

Limitation: State change not permitted for service names (TA_SERVICENAME)
beginning with the reserved string "_".

Input

serviceName: TA_SERVICENAME Service name.

Signature

```
void suspendService(String serviceName) throws USGException,
JMXConnectionException, TUXException, SYSException
```

Resume Service

Activate (advertise) the service instance. State change allowed only when in the
"INActive", "SUSpended" or "INValid" states. For the purpose of determining
permissions for this state transition, the active object permissions are considered (that is,
--x--x--x). Successful return leaves the object in the "ACTive" state.
Limitation: State change not permitted for service names (TA_SERVICENAME)
beginning with the reserved string ".".

Input

serviceName: TA_SERVICENAME

Signature

```
void resumeService(String serviceName) throws USGException,
JMXConnectionException, TUXException, SYSException
```

Tuxedo System Server Mbean

Following server be modeled as system server MBean.

AUTHSVR
GAUTHSVR
KAUTHSVR
LAUTHSVR
TMMETADATA

TMQFORWARD
DMADM
GWADM
JREPSVR

MBean Name

"<DOMAINID>_<IPCKEY>:type=tuxedo_system_server,group_name=<GROUPNAME>,SRVI
D=<SRVID>".

Operations

GetParameter

Get value for the attribute in T_SERVER which has the same SRVID and SRVGRP with
this MBean.

Input:

parameterName: The MIB attribute name. For example: "TA_MAX".

Signature

```
Object getParameter(String parameterName) throws USGException,
TUXException, SYSException, JMXConnectionException;
```

GetParameters

Get all attribute and values in T_ SERVER which has the same SRVID and SRVGRP with
this MBean.

Signature

```
CompositeData getParameters() throws SYSException,
JMXConnectionException, TUXException, OpenDataException;
```

SetParameter

Set value for the attribute in T_ SERVER which has the same SRVID and SRVGRP with
this MBean.

Input:

parameterName: The MIB attribute name.
parameterValue: The MIB attribute value.

Signature:
```
void setParameter(String parameterName, String parameterValue)
throws TUXException, USGException, SYSException,
JMXConnectionException, MBeanException;
```

SetParameters

Set value for the attributes in T_ SERVER which has the same SRVID and SRVGRP with this MBean.

Input

Refer to the input for "SetParameters" on page 4-8.

Signature
```
Object setParameters(CompositeData parameters) throws
USGException, SYSException, TUXException,
JMXConnectionException, MBeanException;
```

Delete

Delete both the MBean and all Tuxedo instances associated with the MBean.

Signature
```
void delete() throws TUXException, USGException, SYSException,
JMXConnectionException, MBeanException;
```

Tuxedo Bridge MBean

MBean Name

```
"<DOMAINID>_<IPCKEY>:type= tuxedo_bridge, LMID=<LMID>".
```

`LMID:` specify the LMID parameter associated with the Tuxedo Machine where the bridge is running.

Operations

GetParameter

Get value for the attribute in T_BRIDGE which has the same LMID with this MBean.

Input:

parameterName: The MIB attribute name. For example: "TA_SENTNUM".

Signature
```
Object getParameter(String parameterName) throws USGException,
TUXException, SYSException, JMXConnectionException;
```

GetParameters

Get all attribute and values in T_ BRIDGE with which has the same LMID with this MBean.

Signature

```
CompositeData getParameters() throws SYSException,
JMXConnectionException, TUXException, OpenDataException;
```

Get Remote Link Parameter

Get remote link`s parameter value.

Input:

remoteLMID: The LMID for remote machine.
parameterName: The MIB attribute Name in T_BRIDGE

Signature

```
Object getRemoteLinkParameter(String remoteLMID, String
parameterName) throws TUXException,JMXConnectionException,
SYSException;
```

Get Remote Links

Get all network connections in this bridge server.

Output

Column Name	Note
TA_LMID	Key
TA_STATE	String

Signature

```
TabularData getRemoteLinks ()throws TUXException,
JMXConnectionException, SYSException
```

Set Remote Link Parameters

Set the parameter for remote link in T_BRIDGE class

Signature

```
setRemoteLinkParameters(String remoteLMID, CompositeData
parameters) throws TUXException, JMXConnectionException,
SYSException, USGException
```

Suspend Remote Link

Suspend the remote link by closing the connection between the indicated logical machines. State change allowed only when in the ACTive state. Successful return leaves the object in the SUSpended state. Limitation: Note that since the statistics reported are from the viewpoint of the source logical machine, resetting those statistics will cause them to be out of sync with the statistics reported by the destination logical machine for the same connection.

Input

remoteLmid: Remote machine's LMID.

Signature

```
void suspend (String remoteLmid)throws USGException,
TUXException, SYSException, JMXConnectionException;
```

Resume Remote Link

Reactivate the connection. This operation will fail if remoteLmid is null, if the remoteLmid is equals to the bridge Mean's lmid, if either of the two machines is not active, or if the source logical machine is not reachable. For the purpose of determining permissions for this state transition, the active object permissions are considered (that is, --x--x--x). Successful return leaves the object in the PENding state.

Input

remoteLmid: Remote machine's LMID.

Signature

```
void resume(String remoteLmid)throws USGException,
TUXException, SYSException, JMXConnectionException
```

Deactivate Remote Link

Close the connection between the indicated logical machines. This operation will fail if only remoteLmid is null, if the remoteLmid is equals to the bridge mbean`s lmid or if the two machines are not connected. State change allowed only when in the ACTive state. Successful return leaves the object in the INActive state.

Input

remoteLmid: Remote machine's LMID.

Signature

```
void deactive(String remoteLmid)throws USGException,
TUXException, SYSException, JMXConnectionException
```

Tuxedo TMS Mbean

MBean Name

"<DOMAINID>_<IPCKEY>:type=
tuxedo_TMS,group_name=<GROUPNAME>,aout=<TMSNAME>,rmsname=<RMSNAME>".

RMSNAME: specifies the RMSNAME parameter associated with the Tuxedo TMS.

Operations

GetParameter

Get value for the attribute in T_SERVER which has the same SRVID, SRVGRP,
RMSNAME and TMSNAME with this MBean.

Input:
parameterName: The MIB attribute name.

Signature
```
Object getParameter(String parameterName) throws USGException,
TUXException, SYSException, JMXConnectionException;
```

GetParameters

Get all attribute and values in T_ SERVER which has the same SRVID, SRVGRP,
RMSNAME and TMSNAME with this MBean.

Signature
```
CompositeData getParameters() throws SYSException,
JMXConnectionException, TUXException, OpenDataException;
```

SetParameter

Set value for the attribute in T_ SERVER which has the same SRVID, SRVGRP,
RMSNAME and TMSNAME with this MBean.

Input:
parameterName: The MIB attribute name.
parameterValue: The MIB attribute value.

Signature:
```
void setParameter(String parameterName, String parameterValue)
throws TUXException, USGException, SYSException,
JMXConnectionException, MBeanException;
```

SetParameters

Set value for the attributes in T_ SERVER which has the same SRVID, SRVGRP, RMSNAME and TMSNAME with this MBean.

Input

Refer to the input for "SetParameters" on page 4-8.

Signature

```
Object setParameters(CompositeData parameters) throws
USGException, SYSException, TUXException,
JMXConnectionException, MBeanException;
```

Delete

Delete both the MBean and all Tuxedo instances associated with the MBean.

Signature

```
void delete() throws TUXException, USGException, SYSException,
JMXConnectionException, MBeanException;
```

Tuxedo /T Domain Gateway

MBean Name

```
"<DOMAINID>_<IPCKEY>:type=
tuxedo_domain_gateway,group_name=<GROUPNAME>,SRVID=<SRVID>".
```

Operations

GetParameter

Refer to "GetParameter" on page 4-20.

GetParameters

Refer to "GetParameters" on page 4-20.

SetParameter

Refer to "SetParameter" on page 4-20.

SetParameters

Refer to "SetParameters" on page 4-21.

Delete

Refer to "Delete" on page 4-21.

Tuxedo Mainframe Adapter Gateway for SNA

MBean Name

```
"<DOMAINID>_<IPCKEY>:type=
tuxedo_TMA_gateway_SNA,group_name=<GROUPNAME>,SRVID=<SRVID>".
```

Operations

GetParameter

Refer to "GetParameter" on page 4-20.

GetParameters

Refer to "GetParameters" on page 4-20.

SetParameter

Refer to "SetParameter" on page 4-20.

SetParameters

Refer to "SetParameters" on page 4-21.

Delete

Refer to "Delete" on page 4-21.

Tuxedo Mainframe Adapter Gateway for TCP

MBean Name

```
"<DOMAINID>_<IPCKEY>:type=
tuxedo_TMA_gateway_TCP,group_name=<GROUPNAME>,SRVID=<SRVID>".
```

Operations

GetParameter

Refer to "GetParameter" on page 4-20.

GetParameters

Refer to "GetParameters" on page 4-20.

SetParameter

Refer to "SetParameter" on page 4-20.

SetParameters

Refer to "SetParameters" on page 4-21.

Delete

Refer to "Delete" on page 4-21.

Tuxedo Web Service Gateway

MBean Name

"<DOMAINID>_<IPCKEY>:type=
tuxedo_webservice_gateway,group_name=<GROUPNAME>,SRVID=<SRVID>".

Operations

GetParameter

Refer to "GetParameter" on page 4-20.

GetParameters

Refer to "GetParameters" on page 4-20.

SetParameter

Refer to "SetParameter" on page 4-20.

SetParameters

Refer to "SetParameters" on page 4-21.

Delete

Refer to "Delete" on page 4-21.

Tuxedo Workstation Listener

MBean Name

"<DOMAINID>_<IPCKEY>:type=
tuxedo_workstation_listener,group_name=<GROUPNAME>,SRVID=<SRVID>".

Operations

GetParameter

Get value for the attribute in T_WSL .

Input:

parameterName: The MIB attribute name.

Signature

```
Object getParameter(String parameterName) throws USGException,
TUXException, SYSException, JMXConnectionException;
```

GetParameters

Get all attribute and values in T_ WSL.

Signature

```
CompositeData getParameters() throws SYSException,
JMXConnectionException, TUXException, OpenDataException;
```

SetParameter

Set value for the attribute in T_ WSL.

Input:

parameterName: The MIB attribute name.
parameterValue: The MIB attribute value.

Signature:

```
void setParameter(String parameterName, String parameterValue)
throws TUXException, USGException, SYSException,
JMXConnectionException, MBeanException;
```

SetParameters

Set value for the attributes in T_ WSL.

Input

Refer to the input for "SetParameters" on page 4-8.

Signature

```
Object setParameters(CompositeData parameters) throws
USGException, SYSException, TUXException,
JMXConnectionException, MBeanException;
```

Delete

Refer to "Delete" on page 4-21.

Get Handler Parameter

Get attribute value in T_WSH.

Input:

clientId: TA_CLIENTID

parameterName: The MIB attribute name. For example: "TA_HWCLIENTS".

Signature

```
Object getHandlerParameter(String clientId, String
parameterName) throw USGException, TUXException,
JMXConnectionException, SYSException;
```

Get Handlers

Get all handlers associated with the WSL.

Input

ClientId: If clientId is null, all handlers will be return.

Signature

```
TabularData getHandlers(String clientId) throws TUXException,
JMXConnectionException, SYSException;
```

Suspend Handler

Change the State of WSH to "SUSpended". Note: State changes to the "SUSpended" state are transitive to all clients associated with this WSH as is the resetting of a "SUSpended" WSH to "ACTive". Additionally, "SUSpended" WSH clients will not be assigned any additional incoming clients by the WSL.

Input:

clientId: Client identifier for this WSH.

Signature:

```
void suspendHandler (String clientId) throws TUXException,
JMXConnectionException, SYSException, USGException,
MBeanException;
```

Resume Handler

Set the State of WSH to "ACTive".

Input

clientId: Client identifier for this WSH.

Signature

```
void resumeHandler (String clientId)) throws TUXException,
JMXConnectionException, SYSException, USGException,
MBeanException;
```

Kill Handler

Set the State of WSH to "DEAD", and all connections being handled by the targeted WSH to be dropped abortively.

Input

clientId: Client identifier for this WSH.

Signature

```
void killHandler (String clientId) throws TUXException,
JMXConnectionException, SYSException, MBeanException,
USGException;
```

Get Clients

Get all the clients associated with the WSH.

Input

wshClientID: WSH`s identifier.

Signature

```
TabularData getWSClients(String wshClientID) throws
TUXException, JMXConnectionException, SYSException
```

Suspend Client

Suspend the client object from making service requests (tpcall() or tpacall()), initiating conversations (tpconnect()), beginning transactions (tpbegin()), and enqueuing new requests (tpenqueue()). Clients within a transaction will be permitted to make these calls until they abort or commit the current transaction, at which time they will become suspended. Invocations of these routines will result in a TPESYSTEM error return and a system log message being generated indicating the situation. State change allowed only when in the ACTive state. Successful return leaves the object in the SUSpended state.

Input:

clientId: Client identifier.

Signature

```
Void suspendClient(String clientId) throws TUXException,
JMXConnectionException, SYSException;
```

Resume Client

Activate a SUSpended client object. State change allowed only when in the SUSpended state. Successful return leaves the object in the ACTive state.

Input:

clientId: Client identifier.

Signature:

```
void resumeClient (String clientId) throws TUXException,
JMXConnectionException, SYSException;
```

Kill Client

Abortively deactivate the client object. State change allowed only when in the ACTive or SUSpended state. The system may not be able to kill the client due to platform or signaling restrictions. In this case, a Workstation client's connection to a WSH will be preemptively torn down.

Input

clientId: Client identifier.

Signature
```
Void killClient(String clientId) throws TUXException,
JMXConnectionException, SYSException;
```

Tuxedo Jolt Listener

MBean Name

```
"<DOMAINID>_<IPCKEY>:type=
tuxedo_jolt_listener,group_name=<GROUPNAME>,SRVID=<SRVID>".
```

Operations

GetParameter

Get value for the attribute in T_JSL .

Input:

parameterName: The MIB attribute name.

Signature
```
Object getParameter(String parameterName) throws USGException,
TUXException, SYSException, JMXConnectionException;
```

GetParameters

Get all attribute and values in T_ JSL.

Signature
```
CompositeData getParameters() throws SYSException,
JMXConnectionException, TUXException, OpenDataException;
```

SetParameter

Set value for the attribute in T_ JSL.

Input:

parameterName: The MIB attribute name.
parameterValue: The MIB attribute value.

Signature:
```
void setParameter(String parameterName, String parameterValue)
throws TUXException, USGException, SYSException,
JMXConnectionException, MBeanException;
```

SetParameters

Set value for the attributes in T_ JSL.

Input

Refer to the input for "SetParameters" on page 4-8.

Signature

```
Object setParameters(CompositeData parameters) throws
USGException, SYSException, TUXException,
JMXConnectionException, MBeanException;
```

Delete JSL

Refer to "Delete" on page 4-21.

Get Handlers

Get all handlers associated with the JSL.

Signature

```
TabularData getHandlers() throws TUXException,
JMXConnectionException, SYSException;
```

Suspend Handler

Change the State of JSH to "SUSpended".

Input

clientId: Client identifier for JSH.

Signature

```
void suspendHandler (String clientId) throws TUXException,
JMXConnectionException, SYSException;
```

Resume Handler

Activate a SUSpended JSH object.

Input

clientId: Client identifier for JSH.

Signature

```
void resumeHandler (String clientId) throws TUXException,
JMXConnectionException, SYSException;
```

Tuxedo Event Broker

MBean Name

"<DOMAINID>_<IPCKEY>:type=
tuxedo_event_broker,group_name=<GROUPNAME>,SRVID=<SRVID>".

Operations

GetParameter

Refer to "GetParameter" on page 4-20.

GetParameters

Refer to "GetParameters" on page 4-20.

SetParameter

Refer to "SetParameter" on page 4-20.

SetParameters

Refer to "SetParameters" on page 4-21.

Delete

Refer to "Delete" on page 4-21.

Tuxedo Queue Server

MBean Name

"<DOMAINID>_<IPCKEY>:type=
tuxedo_queue_server,group_name=<GROUPNAME>,SRVID=<SRVID>".

Operations

GetParameter

Refer to "GetParameter" on page 4-20.

GetParameters

Refer to "GetParameters" on page 4-20.

SetParameter

Refer to "SetParameter" on page 4-20.

SetParameters

Refer to "SetParameters" on page 4-21.

Delete

Refer to "Delete" on page 4-21.

Tuxedo QTMQ Server

MBean Name

"*<DOMAINID>_<IPCKEY>*:type=
tuxedo_OTMQ_server,group_name=*<GROUPNAME>*,SRVID=*<SRVID>*".

Operations

GetParameter

Refer to "GetParameter" on page 4-20.

GetParameters

Refer to "GetParameters" on page 4-20.

SetParameter

Refer to "SetParameter" on page 4-20.

SetParameters

Refer to "SetParameters" on page 4-21.

Delete

Refer to "Delete" on page 4-21.

Create Queue

Input

Parameter Name	Value	Note
qname	string [1..127]	Queue Name. Required input field.
qorder	PRIO | TIME | LIFO | FIFO | EXPIR | null	Queue order. Optional input field. The default value is FIFO.
outoforder	NONE | TOP | MSGID | null	Out-of-ordering enqueuing. Optional input field. The default value is NONE.
maxRetries	A number and $>= 0$ && $<= 4$ byte long.	Max Retry number. Optional input field. The default value is 0.

retryDelay	A number and >= 0 && <= 4 byte long	Retry delay in seconds. Optional input field. The default value is 0.
defaultDeliveryPolicy	persist | nonpersist | null	Default delivery policy. Optional input field.The default value is persist
cmd	string[0..127] | null	The command to be automatically executed when the high water mark for persistent (disk-based) messages is reached. Optional input field.
defaultExpirationTime	{+seconds | NONE}	Expiration time for messages enqueued with no explicit expiration time. Optional input field. 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 attribute 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 may change the expiration time for messages already in a queue with the TA_EXPIRETIME attribute of the T_OTMQMSG class in the APPQ_MIB.
qType	{P|S|M|U|null}	Optional input field. The default value is U.
primaryQueue	string[1..127]|null	Primary Queue. Optional input field.
isPermanentActive	{Y|N|null}	Permanent Active/or not. Optional input field. The default value is "Y".
comfirmStyle	{ EO|EI|II|null }	Confirm style. Optional input field. The default value is EO

Signature

```
Void createQueue(String qname, String qorder, String outoforder,
Integer maxRetries, Integer retryDelay, String
defaultDeliveryPolicy, String cmd, String
defaultExpirationTime, String qType, String primaryQueue,
Boolean isPermanentActive, String comfirmStyle) throws
TUXException, JMXConnectionException, SYSException,
USGException;
```

Tuxedo ART Batch System Target

MBean Name

"<*DOMAINID*>_<*IPCKEY*>:type= tuxedo_batch_system,name=Batch_System".

Operations

getBatchs

Displays the existing jobs.

Input:

```
batchName: job name
batchID: job id
batchClass: jobs class
batchOwner: job owner
```

Output:

Column Name	Note
JES2_JOB_ID	Job ID
JES2_JOB_NAME	Job Name
JES2_JOB_STATUS	Job Status
JES2_JOB_SUBMITTIME	The time when the job is submitted
JES2_JOB_EXECTIME	The time when the job is executed
JES2_JOB_ENDTIME	The time when the job is ended
JES2_JOB_CLASS	Job class
JES2_JOB_TYPRUN	Job TYPRUN definition
JES2_JOB_PRTY	Job priority
JES2_JOB_SCRIPT	Job script file name
JES2_JOB_OWNER	Job owner
JES2_JOB_EXECMAC	The machine name that the job is/was running on
JES2_JOB_CURRENT	Current running step

Column Name	Note
JES2_JOB_EXECSTATUS	Job executing status
JES2_JOB_MSG	Job executing message
JES2_JOB_FILEINFO	Job file accessing information
JES2_JOB_TYPE	Job type
JES2_JOB_CPUINFO	CPU usage in each step
JES2_JOB_USRSEC	User CPU usage seconds
JES2_JOB_USRUSEC	User CPU usage microseconds
JES2_JOB_SYSSEC	System CPU usage seconds
JES2_JOB_SYSUSEC	System CPU usage microseconds

Signature:

```
TabularData getBatchs(String batchName, Integer batchID, String
batchClass, String batchOwner)throws MBeanException
```

getBatchFiles

Gets job script files under the job repository.

Output:

Column Name	Note
JES2_JOB_SCRIPT	Job script file name
JES2_JOB_NAME	Job name
JES2_JOB_PRTY	Job priority
JES2_JOB_CLASS	Job class
JES2_JOB_RESTARTOPTION	Restart Option
JES2_JOB_TYPRUN	Job TYPRUN definition

Column Name	Note
JES2_JOB_VERSION	Job version
JES2_JOB_STARTLABEL	Job start label

Signature:

```
TabularData getBatchFiles()throws MBeanException
```

submitBatch

Submits a job

Input:

```
batchScript: job script file name
batchOwner: job owner
batchEJROption: EJR option
batchShellOption: shell option
batchDBLogin: database connection (MT_DB_LOGIN)
batchMTEnv: environment variables
```

Output:

Column Name	Note
JES2_JOB_ID	Job ID
JES2_JOB_NAME	Job name
JES2_JOB_TYPRUN	Job TYPRUN definition
JES2_JOB_ERROR	Error message when failing

Signature:

```
TabularData submitBatch(String batchScript, String batchOwner,
String batchEJROption, String batchShellOption,
String batchDBLogin, String batchMTEnv) throws TUXException,
SYSException, JMXConnectionException, USGException,
```

cancelBatch

Cancels job(s)

Input:

Refer to the input of .

Output:

Column Name	Note
JES2_JOB_ID	Job ID
JES2_JOB_NAME	Job name
JES2_JOB_ERROR	Error message when failing

Signature:

```
TabularData cancelBatch(String batchName, Integer batchId,
String batchClass, String batchOwner) throws SYSException,
TUXException, JMXConnectionException
```

purgeBatch

Purges job(s)

Input:

Refer to the input of "getBatchs" on page 4-40.

Output:

Refer to the output of "cancelBatch" on page 4-42.

Signature:

```
TabularData purgeBatch(String batchName, Integer batchId,
String batchClass, String batchOwner) throws SYSException,
TUXException, JMXConnectionException
```

holdBatch

Holds job(s)

Input:
Refer to the input of "getBatchs" on page 4-40

Output:
Refer to the output of "cancelBatch" on page 4-42

Signature:

```
TabularData holdBatch(String batchName, Integer batchId,
String batchClass, String batchOwner) throws SYSException,
TUXException, JMXConnectionException
```

releaseBatch

Releases job(s)

Input:

Refer to the input of

Output:

Refer to the output of

Signature:
```
TabularData releaseBatch(String batchName, Integer batchId,
String batchClass, String batchOwner) throws SYSException,
TUXException, JMXConnectionException
```

getBatchSysOuts

Gets the job sysout

Input:
```
batchID: job id
```

Output:

Column Name	Note
JES2_JOB_SCRIPT	Job log file name
JES2_FILE_CONTENT	Job log file content

Signature:
```
TabularData getBatchSysOuts(Integer batchId) throws MBeanException
```

getGDGFiles

Gets the job GDG file content.

Input:
```
batchID: job id
filename: GDG file name
```
Output:

Column Name	Note
JES2_JOB_STATUS	Job status
JES2_FILE_CONTENT	GDG file content

Signature:

```
CompositeData getGDGFiles(String bachID, String fileName) throws
MBeanException
```

TXST Command and Variable Reference

This chapter contains the following sections:

TXST Command Categories Overview

TXST commands are divided into the following categories.

Command Category	Description
Browse Commands	Navigate the hierarchy of configuration or runtime beans and control the prompt display.

Control Commands	Connect to or disconnect from JMX agent or Tuxedo Domain. Exit TXST.
Editing Commands	Create or delete Mbean. Get or set parameters of Mbean.
Information Commands	Interrogate Mbeans and configuration of TXST.
Life Cycle Commands	Start, stop, suspend, resume, and migrate specified Mbean.

Browse Commands

cd

Use with TXST: online(connected to domain)

Description

Navigates the hierarchy of beans. This command uses a model that is similar to navigating a file system in a Windows or UNIX command shell. For example, to navigate back to a bean, enter cd('..'). The character string '. .'(dot-dot), refers to the directory immediately above the current directory. To get back to the root bean after navigating to a bean that is deep in the hierarchy, enter cd('/').

You can navigate to beans in the current hierarchy and to any child or instance.

The cd command returns a stub of the bean instance, if one exists. In the event of an error, the command returns a TXSTException.

Syntax

```
cd(mbeanName)
```

Argument	Definition
mbeanName	Path to the bean in the namespace.

Examples

The following example navigates the hierarchy of beans. The first command navigates to the simple bean instance, the second, to the GROUP1 bean instance, and the last back up two levels to the original directory location.

```
txst:simpapp_38075:/> cd('lmid1')
txst:simpapp_38075:/lmid1> cd('lmid1')
txst:simpapp_38075:/lmid1> cd('GROUP1')
txst:simpapp_38075:/lmid1/GROUP1> cd('../..')
txst:simpapp_38075:/>
```

prompt

Use with TXST: online(connected to domain)

Description

Toggles the display of path information at the prompt, when entered without an argument. This command is useful when the prompt becomes too long due to the length of the path.

You can also explicitly specify on or off as an argument to the command. When you specify off, TXST hides the TXST prompt and defaults to the Jython prompt. By default, the TXST prompt displays the navigation path information.

When you disable the prompt details, to determine your current location in the hierarchy, you can use the pwd command, as described in pwd.

Syntax

```
prompt(onoff = None)
```

Argument	Definition
onoff	Optional. Hides or displays TXST prompt. Valid values include off or on.
	The off argument hides the TXST prompt.
	If you run prompt('off'), when using TXST online, the prompt defaults to the Jython prompt. You can create a new prompt using Jython syntax. For more information about programming using Jython, seehttp://www.jython.org. In this case, if you subsequently enter the prompt command without arguments, TXST displays the TXST command prompt with the path information. To disable the path information, enter prompt() again, or enter prompt('off').
	The on argument displays the default TXST prompt, including the path information. In this case, if you subsequently enter the prompt command without arguments, TXST displays the TXST command prompt without the path information. To display the path information, enter prompt() again or enter prompt('on').

Examples

The following example hides and then redisplays the path information at the prompt.

```
txst:simpapp_38075> cd('simple')
txst: simpapp_38075/simple> cd('GROUP1')

txst: simpapp_38075/simple/GROUP1> prompt('off')
>>>prompt()
txst: simpapp_38075/simple/GROUP1>
```

pwd

Use with TXST: offline or online

Description

Displays the current location in the bean hierarchy. This command is useful when you have turned off the prompt display of the path information using the prompt command, as described in prompt.

Syntax

```
pwd()
```

Examples

The following example displays the current location in the bean hierarchy.

```
txst:simpapp_38075/simple/GROUP1> pwd()
' /simple/GROUP1'
```

Control Commands

connect

Use with TXST: offline

Description

Connects TXST to a Tuxedo Domain or JMX agent.

If the monitored Tuxedo domain enables authentication and Authorization, TXST must provide credentials when it attaches a Tuxedo domain. If authentication passed, the following tasks are executed afterwards. If authentication failed, the connection is rejected. For now, we only support plaintext password.

SECURITY

- APP_PW

  Provide tuxedo application password for authentication.

- USR_AUTH,ACL,MANDATORY_ACL

Provide application password, user name and user password for authentication

The client name of Tuxedo users used by TXST must be 'tpsysadm', otherwise connect will fail with authentication.

The client must connect master machine, otherwise it might have no right to execute 'start' command.

In the event of an error, the command returns a TXSTException.

Syntax

```
connect(url, domainId, ipckey, appPassword, userName, password)
```

Argument	Definition
url	Listen address and listen port of the server instance, specified using the following format: [protocol://]listen-address:listen-port. If you only supply the argument url, it will connect to jmx instead of domain.
domainId	[optional]The domain's id defined in UBB.
ipckey	[optional]The ipckey defined in UBB. Value is string.
userName	[optional]Name representing the client.
password	[optional]Used for user authentication.
appPasswd	[optional]Application password.

Examples

```
txst: /offline> connect('//slce04cn03.us.oracle.com:5037', 'simpapp',
'38075')
```

```
txst:simpapp_38075:/>
```

Above example shows how to connect to domain.

Or

```
txst: /offline> connect('//slce04cn03.us.oracle.com:5037')
```

```
txst: slce04cn03.us.oracle.com_5037:/>
```

This is an instance of connecting to jmx.

connectDomain

Use with TXST: online(connected to JMX agent)

Description

Connects TXST to a Tuxedo Domain from JMX agent. You must connect to jmx before invoking this command. Except without argument url, for the other information, please refer connect.

Syntax

```
connectDomain(domainId, ipckey, appPassword, userName, password)
```

Argument	Definition
domainId	The domain's id defined in UBB.
ipckey	The ipckey defined in UBB.
userName	[optional]Name representing the client.
password	[optional]Used for user authentication.
appPasswd	[optional]Application password.

Examples

```
txst:bjlinux16.cn.oracle.com_5037>connectDomain('simpapp', '58103')

txst:simpapp_58103:/>
```

disconnectDomain

Use with TXST: online(connected to domain)

Description

Disconnect TXST from a Tuxedo domain instance and go back to jmx agent connection.

In the event of an error, the command returns a TXSTException.

Syntax

```
disconnectDomain()
```

Examples

```
txst:simpapp_38075:/simple/GROUP1>disconnectDomain()

txst:bjlinux16.cn.oracle.com_5037>
```

disconnect

Use with TXST: online

Description

Disconnects TXST from a Tuxedo instance. The disconnect command does not cause TXST to exit the interactive scripting shell; it closes the current Tuxedo instance connection and resets all the variables while keeping the interactive shell alive.

In the event of an error, the command returns a TXSTException.

Syntax

```
disconnect()
```

Examples

```
txst:simpapp_38075:/simple/GROUP1>disconnect()
```

txst: /offline>

exit

Use with TXST: online or offline

Description

Exits TXST from the user session and closes the scripting shell. By default, TXST calls system.exit(0). If you would like to exit with a different exit code, you can specify a value using the exitcode argument.

Syntax

```
exit( [exitcode])
```

Argument	Definition
exitcode	Optional. Exit code to set when exiting TXST.

Examples

```
txst:simpapp_38075:/>exit(1);
```

c:\jython\bin>

Editing Commands

create

Use with TXST: online(connected to domain)

Description

Creates a bean of the specified type for the current bean.

The create command returns a stub for the newly created bean except for queue.

In the event of an error, the command returns a TXSTException.

Syntax

```
create(name, childtype,**argv)
```

Argument	Definition
name	Name of the bean that you are creating. You can specify the full pathname of bean. Meaning of name is different from childtype: Machine->pmid. Group->groupName. Bridge->lmid. Server->aout. TMS->tmsName. Queue->qname.
childtype	Type of bean that you are creating. The valid value should be MACHINE, GROUP, BRIDGE, SERVER, TMS or QUEUE.
argv	The other additional parameters for this bean.

Note: argv, the additional parameters depend on the childMBeanType.

Except creating queue, the return value will be the instance of Mbean which you create. For queue, the return value will be None.

- Machine
  - lmid
  - tuxconfig
  - tuxdir
  - appdir
- Group
  - groupNo
- Bridge
  - naddr
  - nlsaddr
- Server
  - srvID
- TMS
  - rmsName
  - rmid
- Queue
  - qorder
  - outoforder
  - maxRetries
  - retryDelay
  - defaultDeliveryPolicy
  - cmd
  - defaultExpirationTime
  - qType
  - primaryQueue
  - isPermanentActive
  - comfirmStyle

Examples

The following example creates a bean of type server named simpserv for the current bean, storing the stub as server1:

```
txst:simpapp_38075:/simple/GROUP1> srv1 = create("simpserv", "SERVER",
srvID =40)

txst:simpapp_38075:/simple/GROUP1> ls('c')

childBean:

        server                          simpserv_1

        server                          simpserv_2

        server                          simpserv_40
```

delete

Use with TXST: online(connected to domain)

Description

Deletes an instance of a bean of the specified type for the current bean.

In the event of an error, the command returns a TXSTException.

Note: All targets which belong to this bean must be deleted first.

Syntax

```
delete(name, force)
```

Argument	Definition
name	Name of the bean to delete.
force	[Optional] If force is True, it will delete the specified bean and all the targets belong to it. Otherwise, it will fail if there are targets belong to this bean. The default value for this argument is False.

Examples

The following example deletes the bean of type server named simpserv_1:

```
 txst:simpapp_38075:/simple/GROUP1>delete("simpserv_40")
txst:simpapp_38075:/simple/GROUP1>ls('c')

childBean:

      server                              simpserv_1

      server                              simpserv_2
```

get

Use with TXST: online(connected to domain)

Description

Returns the value of the specified attribute, or the dictionary of the specified attributes

In the event of an error, the command returns a TXSTException.

Note: You can list all attributes and their current values by entering ls('b').

Syntax

```
get(attrs=None, path=None)
```

Argument	Definition
attrs	Name of the attribute to be displayed. You can specify the full pathname of the attribute. If no pathname is specified, the attribute is displayed for the current object. If fullpath is set, attrs must not include pathname.
	You can specify a set of attribute's name, if so, the attribute's name must not include pathname.
	You also needn't specify the attributes, if so, get() will return all the attributes' value.
path	Optional. You can specify the object's pathname. The object can be others rather than current object. If not setting pathname, the attribute is displayed for the current object.

Examples

```
txst:simpapp_38075:/simple/GROUP1> dic = get(["TA_CURLMID","TA_STATE"])
```

```
txst:simpapp_38075:/simple/GROUP1> print dic

{'TA_CURLMID': u'simple', 'TA_STATE': u'ACTIVE'}
```

Or

```
txst:simpapp_38075:/> dic = get(["TA_CURLMID","TA_STATE"],
path="/simple/GROUP1")

txst:simpapp_38075:/> print dic

{'TA_CURLMID': u'simple', 'TA_STATE': u'ACTIVE'}
```

set

Use with TXST: online(connected to domain)

Description

Sets the specified attribute value for the specified bean

You can list all attributes and their current values by entering ls('b')

In the event of an error, the command returns a TXSTException.

Syntax

```
set(attrs,[path])
```

Argument	Definition
attrs	The dictionary which stores the attributes and their values.
path	Optional. You can specify the object's pathname. The object can be others rather than current object. If not setting pathname, the attribute is set for the current object.

Attributes:

attrName	Name of the attribute to be set. It is the key in dictionary
value	Value of the attribute to be set. It is the value in dictionary

Examples

```
txst:simpapp_38075:/simple/>a = {"TA_SEC_PRINCIPAL_NAME":"SEC"}

txst:simpapp_38075:/simple/>set (a)
```

or

```
txst:simpapp_38075:/>a = {"TA_SEC_PRINCIPAL_NAME":"SEC"}

txst:simpapp_38075:/>set (a, "/simple")
```

Information Commands

find

Use with TXST: online(connected to domain)

Description

Finds MBeans in the hierarchy.

TXST returns the pathname to the MBean that is specified by name.

In the event of an error, the command returns a `TXSTException`.

Syntax

```
find([name], [beanType], [path])
```

Argument	Definition
name	Name of the MBean that you want to find. It is a Jython regular expression. If you want to match the name entirely, please add "^" at the beginning and add "$" at the end. For example. "^simpserv_1$'
beanType	Optional. Type of the MBean to find. If type is not set, it will search for all Mbeans which is specified by name. 'machine', 'group' or 'server' is valid.
path	Optional. You can specify the object's pathname. The object can be others rather than current object. If not setting pathname, the attribute is set for the current object.

Examples

```
txst:simpapp_38075:/simple/GROUP1>find(name='simpserv',type='server')

/simple/GROUP1/simpserv_1

/simple/GROUP1/simpserv_2
```

getMBean

Use with TXST: online(connected to domain)

Description

Returns the MBean by browsing to the specified path.

In the event of an error, the command returns a TXSTException.

Syntax

```
getMBean(path)
```

Argument	Definition
path	Path name to the MBean in the current hierarchy.

Examples

The following example returns the MBean specified by the path.

```
txst:simpapp_38075:/simple/GROUP1>com=getMBean("/simple/GROUP1/simpserv_1"
)

txst:simpapp_38075:/simple/GROUP1>com.getType()

'server'
```

getPath

Description

Returns the MBean's path for the specified MBean instance

In the event of an error, the command returns a TXSTException.

Syntax

```
getPath(bean)
```

Argument	Definition
bean	MBean instance for which you want to return the MBean path.

Examples

The following example returns the MBean specified by the path.

```
txst:simpapp_38075:/simple/GROUP1>com=getMBean("/simple/GROUP1/simpserv_1"
)

txst:simpapp_38075:/simple/GROUP1>cd('..')

txst:simpapp_38075:/simple>path=getPath(com)

txst:simpapp_38075:/simple>print path

GROUP1/simpserv_1
```

lookup

Use with TXST: online(connected to domain)

Description

Looks up the specified MBean. The MBean must be a child of the current MBean

In the event of an error, the command returns a TXSTException.

Syntax

```
lookup(name, [childtype])
```

Argument	Definition
name	Name of the MBean that you want to lookup. It is a Jython regular expression. If you want to match the name entirely, please add "^" at the beginning and add "$" at the end. For example. "^simpserv_1$'
childtype	Optional. The type of the MBean that you want to lookup. The type which depends on current MBean should be as below:
	Domain->'machine'
	Machine->'bridge', 'group'
	Group->'server'

Examples

The following example looks up the specified server, simpserv_1, and stores the returned stub in the sbean variable.

```
txst:simpapp_38075:/simple/GROUP1>sbean=lookup('^simpserv_1$','server')

txst:simpapp_38075:/simple/GROUP1>sbean[0].getName()

'simpserv_1'
```

or

```
txst:simpapp_38075:/simple/GROUP1>sbean=lookup("simpserv",'server')

txst:simpapp_38075:/simple/GROUP1>sbean[0].getName()

'simpserv_1'

txst:simpapp_38075:/simple/GROUP1>sbean[1].getName()

'simpserv_2'
```

ls

Use with TXST: online(connected to domain)

Description

Lists all the child beans and/or attributes for the current bean.

You can optionally control the output by specifying an argument. If no argument is specified, the command lists all child beans and attributes in the domain. The output is returned as a string.

In the event of an error, the command returns a TXSTException.

Syntax

```
ls( ['a' | 'c' | 'b' ], [path] )
```

Argument	Definition
a	Optional. Displays all the attribute names and values for the current bean.
c	Optional. Displays all the child beans that are contained in the current bean. This argument is the default.
b	Optional. Displays all parameter names and values for the current bean.
s	Optional. Display additional info for the current Mbean. Each type mbean may have different additional info.
Path	Optional. Path name to the MBean in the current hierarchy for which you want to list all child beans and attributes.

Examples

The following example displays all the child beans, and attribute names and values for the MBean GROUP1:

```
txst:simpapp_38075:/simple/GROUP1>ls()
```

redirect

Use with TXST: online(connected to domain)

Description

Redirects TXST output to the specified filename.

In the event of an error, the command returns a TXSTException.

Syntax

```
redirect(outputFile, [toStdOut])
```

Argument	Definition
outputFile	Name of the file to which you want to record the TXST commands. The filename can be absolute or relative to the directory from which you enter the command.
toStdOut	Optional. Boolean value specifying whether the output should be sent to stdout. This argument defaults to true, indicating that the output will be sent to stdout.

Limitation:

After invoking redirect when toStdOut is TRUE, sys.stdout is assigned to TXST's internal Pyobject which only supports the following functions: write(), writelines(), flush(), close()

After invoking redirect when toStdOut is FALSE, sys.stdout is assigned to FileOutputStream's object.

Examples

The following example begins redirects TXST output to the logs/txst.log file in the current directory:

```
txst:simpapp_38075:/> redirect('./logs/txst.log')
```

startRecording

Use with TXST: online(connected to domain)

Description

Records all user interactions with TXST. This command is useful for capturing commands for replay. In the event of an error, the command returns a TXSTException.

Limitation:

This command doesn't take effect when TXST works as a Jython Module, because the interpreter is InteractiveInterpreter but not TXSTInterpreter. This command depends on TXSTInterpreter.

Syntax

```
startRecording(recordFile)
```

Argument	Definition
recordFile	Name of the file to which you want to record the commands. The filename can be absolute or relative to the directory from which you invoked TXST.

Examples

The following example begins recording commands in the record.py file:

```
txst:simpapp_38075:/> startRecording('c:/myScripts/record.py')
```

stopRecording

Use with TXST: online(connected to domain)

Description

Stops recording TXST commands. For information about starting a recording

In the event of an error, the command returns a TXSTException.

Limitation:

This command doesn't take effect when TXST works as a Jython Module, because the interpreter is InteractiveInterpreter but not TXSTInterpreter. This command depends on TXSTInterpreter.

Syntax

```
stopRecording()
```

Examples

```
txst:simpapp_38075:/> stopRecording()
```

stopRedirect

Use with TXST: online(connected to domain)

Description

Stops the redirection of TXST output to a file, if redirection is in progress.

In the event of an error, the command returns a TXSTException.

Syntax

```
stopRedirect()
```

Examples

```
txst:simpapp_38075:/> stopRedirect()
```

easeSyntax

Use with TXST: online or offline

Description

This command allow users to invoke some commands without typing the parenthese.

If you want to turn off the easy syntax mode, just simply issue this command again.

The supported commands are as follows:

```
cd, ls, find,connect,startRecording, migrate, resume, shutdown, start,
suspend, prompt, disconnect, pwd, stopRecording, stopRedirect, easeSyntax,
exit.
```

Syntax

```
easeSyntax()
```

Examples

```
txst:simpapp_58103:/>easeSyntax()

easeSyntax on now.

txst:simpapp_58103:/>ls c

childBean:

        tuxedo_machine                                          L1
```

Life Cycle Commands

migrate

Use with TXST: online(connected to domain)

Description

Migrates the servers in the specified scope to an alternate location. This command only is supported by Machine MBean and Group's.

In the event of an error, the command returns a TXSTException.

Syntax

```
migrate( name )
```

Argument	Definition
name	Optional. Name of the Machine MBean or Group's in which the server should be migrated. If not specified, this argument default is current MBean.

Examples

```
txst:simpapp_38075:/simple/GROUP1> migrate()
```

or

```
txst:simpapp_38075:/> migrate("/simple/GROUP1")
```

resume

Use with TXST: online(connected to domain)

Description

Resume an object that is suspended.

In the event of an error, the command returns a TXSTException.

Syntax

```
resume( targetName, Mbean )
```

Argument	Definition

targetName	The Name of object to resume
	`Machine->client`
	`Server->service`
	`Bridge->remoteLmid`
	`WSH->handler`
	`JSH->handler`

Mbean	Optional. Name of the MBean which object will be suspend. The argument defaults to the current MBean. Support the following MBeans: `Machine, Server, Bridge, WSH, JSH`

Examples

Resume the client named 'clientID' which belongs to machine 'simple':

```
txst:simpapp_38075:/simple> resume("clientID")
```

or

```
txst:simpapp_38075:/> resume("clientID", "/simple")
```

shutdownDomain

Use with TXST: online(connected to domain)

Description

Gracefully shutdown the tuxedo domain. If domain is shutdown successfully, TXST will disconnect from domain and go back to connect jmx.

In the event of an error, the command returns a TXSTException.

Notes:

- JMX client must connect to master node, otherwise this command will fail.
- TXST must connect to domain, otherwise this command will fail.

Syntax

```
shutdownDomain()
```

Examples

```
txst:simpapp_58103:/>shutdownDomain()

Shutting down server processes ...

        Server Id = 1 Group Id = GROUP1 Machine = L1:   SIGTERM

Shutting down admin processes ...

        Server Id = 0 Group Id = L1 Machine = L1:       shutdown succeeded

2 processes stopped.

txst:bjlinux16.cn.oracle.com_5037>
```

startDomain

Use with TXST: online(connected to JMX agent)

Description

Start the tuxedo domain. If invoking is success, you can connect to domain.

In the event of an error, the command returns a TXSTException.

Notes:

- TXST must connect to JMX agent, otherwise this command will fail.

- This command will fail if TXST is connected to domain.

Syntax

```
startDomain(tuxconfig)
```

Argument	Definition
tuxconfig	The TUXCONFIG of tuxedo instance.

Examples

```
txst:bjlinux16.cn.oracle.com_5037>startDomain('/nfs/users/bosguo/workspace
/txst/simpapp/tuxconfig')

INFO: Oracle Tuxedo, Version 12.1.3.0.0 beta, 64-bit, Patch Level (none)

Booting admin processes ...

exec BBL -A :

        process id=1996 ... Started.

Booting server processes ...

exec server -A :

        process id=1999 ... Started.

2 processes started.

txst:bjlinux16.cn.oracle.com_5037>
```

shutdown

Use with TXST: online(connected to domain)

Description

Gracefully shuts down the specified object

In the event of an error, the command returns a TXSTException.

Note: JMX client must connect to master node, otherwise this command will fail.

Syntax

```
shutdown( name )
```

Argument	Definition
name	Optional. Name of the MBean to shutdown. This argument specifies the MBean with two ways. First, name could be the valid path of the Mbean. For instance, '/SITE1/QUEGRP' is a path of group. If no specified, this argument default is current MBean. TMS is not supported by this method. Second, name could contain the information of 'AOUT' and the location which the related servers are located in. These two parts must be connected by ':'. And this method is only valid for Server. For instance, '/SITE1: simpserv' means the servers which belong to 'SITE1'. Support the following MBeans: Machine, Group, Server

Examples

```
shutdown the server 'simpserv_01'

txst:simpapp_38075:/simple/GROUP1/simpserv_01> shutdown()


#simpserv_01 is shutdown.
```

or

```
shutdown the servers which AOUT is 'simpserv' in machine simple

txst:simpapp_38075:/simple>shutdown("/simple:simpserv")


#simpserv_01, simpserv_02 are shutdown.
```

start

Use with TXST: online(connected to domain)

Description

Start the specified object

In the event of an error, the command returns a TXSTException.

Note: JMX client must connect to master node, otherwise this command will fail.

Syntax

```
start ( name)
```

Argument	Definition
name	Optional. Name of the MBean to start. This argument specifies the MBean with two ways. First, name could be the valid path of the Mbean. For instance, '/SITE1/QUEGRP' is a path of group. If no specified, this argument default is current MBean. TMS is not supported by this method. Second, name could contain the information of 'AOUT' and the location which the related servers are located in. These two parts must be connected by ':'. This method is only valid for Server . For instance, '/SITE1: simpserv' means the servers which belong to 'SITE1'. Support the following MBeans: Machine, Group, Server

Examples

```
boot the server 'simpserv_01'

txst:simpapp_38075:/simple/GROUP1/simpserv_01> start()


#simpserv_01 is booted.
```
or
```
boot the server which AOUT is 'simpserv'

txst:simpapp_38075:/simple>start("/simple:simpserv")


#simpserv_01, simpserv_02 are booted.
```

suspend

Use with TXST: online(connected to domain)

Description

Suspends the specified object.

In the event of an error, the command returns a TXSTException.

Syntax

```
suspend(targetName, Mbean)
```

Argument	Definition

targetName	The Name of object to suspend
	`Machine->client`
	`Server->service`
	`Bridge->remoteLmid`
	`WSH->handler`
	`JSH->handler`

Mbean	Optional. Name of the MBean which object will be suspend. The argument defaults to the current MBean. Support the following MBeans: Machine, Server, Bridge, WSH, JSH

Examples

```
Suspend the client named 'clientID' which belongs to machine 'simple'

txst:simpapp_38075:/simple> suspend("clientID")
```

or

```
txst:simpapp_38075:/> suspend("clientID", "simple")
```

TXST Variable Reference

Following table describes TXST variables and their common usage.

Variable	Description
cmo	Current Management Object. The cmo variable is set to the bean instance to which you navigate using TXST. You use this variable to perform any create, get, set, or invoke method on the current bean instance. By default, this variable is initialized to the root of all configuration management objects, DomainMBean.
connected	Boolean value specifying whether TXST is connected to a running server. TXST sets this variable to true when connected to a running server; otherwise, TXST sets it to false.
domainMbean	Name of the domain to which TXST is connected.
exitonerror	Boolean value specifying whether TXST terminates script execution when it encounters an exception. This variable defaults to true, indicating that script execution is terminated when TXST encounters an error. This variable is not applicable when running TXST in interactive mode.
mbsc	MBeanServerConnection object that corresponds to the current location in the hierarchy.
recording	Boolean value specifying whether TXST is recording commands. TXST sets this variable to true when the startRecording command is entered; otherwise, TXST sets this variable to false.

Jython Class for Tuxedo Mbeans

In TXST, all the Tuxedo Mbeans have corresponding Jython class. Jython class has a set of function to implements corresponding Mbean's operations. This section describes the Jython class in TXST.

Mbean

This is the root class for other classes in TXST. It provides a set of basic operation.

getName

get the object's name

getType

get the object's type

getMbeanName

get the MBean's objectName.

DomainMbean

Inherited from MBean

CreateMachine

Syntax

```
CreateMachine(pmid,lmid,tuxconfig,tuxdir,appdir)
```

This function invokes JMX interface createMachine of Domain Mbean. For more information, refer to Tuxedo Domain MBean.

GetParameters

Syntax

```
GetParameters()
```

Output

A dictionary which includes all attributes and values.

This function invokes JMX interface getParameters of Domain Mbean. For more information, refer to Tuxedo Domain MBean.

GetParameter

Syntax

```
GetParameter(name)
```

This function invokes JMX interface getParameter of Domain Mbean. For more information, refer to Tuxedo Domain MBean.

SetParameters

Syntax

```
SetParameters(data)
```

Input

data: A dictionary which includes the attributes and values to be set.

This function invokes JMX interface setParameters of Domain Mbean. For more information, refer to Tuxedo Domain MBean.

SetParameter

Syntax

```
SetParameter(name, value)
```

This function invokes JMX interface setParameter of Domain Mbean. For more information, refer to Tuxedo Domain MBean.

GetRoutings

Syntax

```
GetRoutings()
```

Output

A list includes all attributes and values of all routings.

This function invokes JMX interface getRouting of Domain Mbean. For more information, refer to Tuxedo Domain MBean.

Add Routing

Syntax

```
AddRouting(routingName,routingType,bufType,field,ranges)
```

This function invokes JMX interface addRouting of Domain Mbean. For more information, refer to Tuxedo Domain MBean.

DeleteRouting

Syntax

```
DeleteRouting(routingName,buftype,field,type)
```

This function invokes JMX interface deleteRouting of Domain Mbean. For more information, refer to Tuxedo Domain MBean.

SetRoutingParameter

Syntax

```
SetRoutingParameter(routingName,buftype,field,type,
parameterName,parameterValue)
```

This function invokes JMX interface setRoutingParameter of Domain Mbean. For more information, refer to Tuxedo Domain MBean.

SetRoutingParameters

Syntax

```
SetRoutingParameters(routingName,buftype,field,ta_type,attrs)
```

Input

attrs: A dictionary includes the attributes and values to be set.

This function invokes JMX interface setRoutingParameters of Domain Mbean. For more information, refer to Tuxedo Domain MBean.

GetRoutingParameter

Syntax

```
GetRoutingParameter(routingName,buftype,field,type,parameterName)
```

Output

A dictionary includes the attribute and the value.

This function invokes JMX interface getRoutingParameter of Domain Mbean. For more information, refer to Tuxedo Domain MBean.

Swap

Syntax

```
Swap()
```

This function invokes JMX interface swap of Domain Mbean. For more information, refer to Tuxedo Domain MBean.

Tuxedo_Domain

Syntax

Tuxedo_Domain()

Output

TUXEDO_ECM_DOMAIN_MBEAN

Field Name	Description

`TA_AUTOTRAN`	For information about these MIB attributes in `T_DOMAIN` refer to Oracle Tuxedo File Formats, Data Descriptions, MIBs, and System Processes Reference.
`TA_TRANTIME`	
`TA_IPCKEY`	
`TA_MASTER`	
`TA_MODEL`	
`TA_DOMAINID`	
`TA_UID`	
`TA_GID`	
`TA_PERM`	
`TA_MAXACCESSERS`	
`TA_MAXSERVERS`	
`TA_MAXSERVICES`	
`TA_MAXGROUPS`	
`TA_MAXNETGROUPS`	
`TA_MAXMACHINES`	
`TA_MAXQUEUES`	
`TA_MAXACLGROUPS`	
`TA_MAXGTT`	
`TA_MAXCONV`	
`TA_MAXBUFTYPE`	
`TA_MAXBUFSTYPE`	
`TA_MAXDRT`	
`TA_MAXRFT`	
`TA_MAXRTDATA`	
`TA_MAXSPDATA`	

`TA_MAXTRANTIME`	For information about these MIB
`TA_CMTRET`	attributes in `T_DOMAIN` refer to Oracle
`TA_LDBAL`	Tuxedo File Formats, Data
`TA_SYSTEM_ACCESS`	Descriptions, MIBs, and System
`TA_OPTIONS`	Processes Reference.
`TA_USIGNAL`	
`TA_SECURITY`	
`TA_SSL_RENEGOTIATION`	
`TA_AUTHSVC`	
`TA_SCANUNIT`	
`TA_SANITYSCAN`	
`TA_DBBLWAIT`	
`TA_BBLQUERY`	
`TA_BLOCKTIME`	
`TA_NOTIFY`	
`TA_SEC_PRINCIPAL_NAME`	
`TA_SEC_PRINCIPAL_LOCATION`	
`TA_SEC_PRINCIPAL_PASSVAR`	
`TA_SIGNATURE_AHEAD`	
`TA_SIGNATURE_BEHIND`	
`TA_SIGNATURE_REQUIRED`	
`TA_ENCRYPTION_REQUIRED`	

MachineMbean

Inherited from MBean

CreateGroup

Syntax

```
CreateGroup(groupName,groupNo)
```

This function invokes JMX interface createGroup of Machine Mbean.

CreateBridge

Syntax

```
CreateBridge(lmid,naddr,nlsaddr)
```

This function invokes JMX interface createBridge of Machine Mbean.

GetParameters

Syntax

```
GetParameters()
```

Output

A dictionary which includes all attributes and values.

This function invokes JMX interface getParameters of Machine Mbean.

GetParameter

Syntax

```
GetParameter(name)
```

This function invokes JMX interface getParameter of Machine Mbean.

SetParameters

Syntax

```
SetParameters(data)
```

Input

data: A dictionary which includes the attributes and values to be set.

This function invokes JMX interface setParameters of Machine Mbean.

SetParameter

Syntax

```
SetParameter(name, value)
```

This function invokes JMX interface setParameter of Machine Mbean.

DeleteRecursively

Syntax

```
DeleteRecursively()
```

Invokes JMX interface deleteRecursively of Machine Mbean.

Delete

Syntax

```
Delete()
```

Invokes JMX interface delete of Machine Mbean.

Migrate

Syntax

```
Migrate()
```

Invokes JMX interface migrate of Machine Mbean.

Clean

Syntax

```
Clean()
```

Invokes JMX interface clean of Machine Mbean.

GetNativeClients

Syntax

```
GetNativeClients()
```

Invokes JMX interface getNativeClients of Machine Mbean.

Suspend

Syntax

```
Suspend(clientId)
```

Invokes JMX interface suspend of Machine Mbean.

Resume

Syntax

```
Resume(clientId)
```

Invokes JMX interface resume of Machine Mbean.

KillClient

Syntax

```
KillClient(clientId)
```

Invokes JMX interface killClient of Machine Mbean.

GetTransactions

Syntax

```
GetTransactions()
```

Output

A list includes all transactions' attributes.

This function invokes JMX interface get Transations of Machine Mbean.

AbortTransaction

Syntax

```
AbortTransaction(transId,xId)
```

Invokes JMX interface abortTransaction of Machine Mbean.

GetUlog

Syntax

```
GetUlog(date, startTime, endTime, line,ulogCat, serverity, totalLine)
```

Output

A list includes all attributes of ulogs.

Invokes JMX interface getULog of Machine Mbean.

Client_Connections

Syntax

```
Client_Connections()
```

Output

```
CLIENT_CONNECTION_NUMBER_MBEAN
```

Field Name	Description
TA_CURCLIENTS	Native Clients Number
TA_CURWSCLIENTS	Workstation Clients Number
TA_CURJOLTCLIENTS	Jolt Clients Number

Machine_Operation_Statistics

Syntax

```
Machine_Operation_Statistics ()
```

Output:

MACHINE_OPERATION_STATISTICS_MBEAN

Field Name	Description
TA_NUMCONV	Following MIB attribute in T_Machine is returned.
TA_NUMDEQUEUE	For information about attribute definition, refer to Oracle Tuxedo File Formats, Data Descriptions, MIBs, and System Processes Reference.
TA_NUMENQUEUE	
TA_NUMPOST	
TA_NUMREQ	
TA_NUMSUBSCRIBE	
TA_NUMTRAN	
TA_NUMTRANABT	
TA_NUMTRANCMT	
TA_WKCOMPLETED	
TA_TIMESTART	
TA_CURTIME	

Tuxedo_machines

Syntax

Tuxedo_machines()

Output

TUXEDO_ECM_MACHINE_MBEAN

Field Name	Description

`TA_PMID`	For information about these MIB attributes in `T_MACHINE`, refer to Oracle Tuxedo File Formats, Data Descriptions, MIBs, and System Processes Reference.
`TA_LMID`	
`TA_APPDIR`	
`TA_TUXCONFIG`	
`TA_TUXDIR`	
`TA_UID`	
`TA_GID`	
`TA_PERM`	
`TA_BRTHREADS`	
`TA_MAXACCESSERS`	
`TA_MAXWSCLIENTS`	
`TA_MAXACLCACHE`	
`TA_MAXCONV`	
`TA_MAXPENDINGBYTES`	
`TA_MAXGTT`	
`TA_TYPE`	
`TA_CMPLIMIT`	
`TA_TMNETLOAD`	
`TA_SPINCOUNT`	
`TA_TLOGDEVICE`	
`TA_TLOGOFFSET`	
`TA_TLOGNAME`	
`TA_TLOGSIZE`	
`TA_ULOGPFX`	
`TA_TUXOFFSET`	

`TA_ENVFILE`	For information about these MIB attributes in `T_MACHINE`, refer to Oracle Tuxedo File Formats, Data Descriptions, MIBs, and System Processes Reference.
`TA_SEC_PRINCIPAL_NAME`	
`TA_SEC_PRINCIPAL_LOCATIO N`	
`TA_SEC_PRINCIPAL_PASSVAR`	
`TA_SIGNATURE_REQUIRED`	
`TA_ENCRYPTION_REQUIRED`	
`TA_SICACHEENTRIESMAX`	

GroupMbean

Inherited from MBean

CreateServer

Syntax

```
CreateServer(aout,srvID)
```

Invokes JMX interface createServer of Group Mbean.

GetParameters

Syntax

```
GetParameters()
```

Output

A dictionary which includes all attributes and values.

This function invokes JMX interface getParameters of Group Mbean.

GetParameter

Syntax

```
GetParameter(name)
```

This function invokes JMX interface getParameter of Group Mbean.

SetParameters

Syntax

```
SetParameters(data)
```

Input

data: A dictionary which includes the attributes and values to be set.

This function invokes JMX interface setParameters of Group Mbean.

SetParameter

Syntax

```
SetParameter(name, value)
```

This function invokes JMX interface setParameter of Group Mbean.

CreateTMS

Syntax

```
CreateTMS(rmsName,rmid,tmsName)
```

Invokes JMX interface createTMS of Group Mbean.

DeleteRecursively

Syntax:

```
DeleteRecursively()
```

Invokes JMX interface deleteRecursively of Group Mbean.

Delete

Syntax

```
Delete()
```

Invokes JMX interface delete of Group Mbean.

Migrate

Syntax

```
Migrate()
```

Invokes JMX interface migrate of Group Mbean.

Tuxedo_groups

Syntax

```
Tuxedo_groups()
```

Output

```
TUXEDO_ECM_GROUPS_MBEAN
```

Field Name	Description

`TA_SRVGRP`	For information about these MIB attributes in `T_GROUP`, refer to Oracle Tuxedo File Formats, Data Descriptions, MIBs, and System Processes Reference.
`TA_LMID`	
`TA_GRPNO`	
`TA_TMSNAME`	
`TA_ENVFILE`	
`TA_TMSCOUNT`	
`TA_SEC_PRINCIPAL_NAME`	
`TA_SEC_PRINCIPAL_LOCATION`	
`TA_SEC_PRINCIPAL_PASSVAR`	
`TA_SIGNATURE_REQUIRED`	
`TA_ENCRYPTION_REQUIRED`	
`TA_OPENINFO`	
`TA_CLOSEINFO`	
`TA_MRM`	

BridgeMbean

Inherited from MBean

GetParameters

Syntax

```
GetParameters()
```

Output

A dictionary which includes the attributes.

This function invokes JMX interface getParameters() of Bridge Mbean.

GetParameter

Syntax

```
GetParameter(name)
```

This function invokes JMX interface getParameter() of Bridge Mbean.

GetRemoteLinks

Syntax

```
GetRemoteLinks ()
```

Output

A list which includes the attributes.

This function invokes JMX interface getRemoteLinks () of Bridge Mbean.

GetRemoteLinkParameter

Syntax

```
GetRemoteLinkParameter(lmid, name)
```

This function invokes JMX interface getRemoteLinkParameter () of Bridge Mbean.

SetRemoteLinkParameters

Syntax

```
SetRemoteLinkParameters (lmid, data)
```

Input

data: A dictionary which includes the attributes.

This function invokes JMX interface setRemoteLinkParameters () of Bridge Mbean.

SuspendRemoteLink

Syntax

```
SuspendRemoteLink (lmid)
```

This function invokes JMX interface suspend () of Bridge Mbean.

ResumeRemoteLink

Syntax

```
ResumeRemoteLink (lmid)
```

This function invokes JMX interface resume () of Bridge Mbean.

DeactivateRemoteLink

Syntax

```
DeactivateRemoteLink (lmid)
```

This function invokes JMX interface deactive () of Bridge Mbean.

Bridge_Remote_Link_Statistics

Syntax

```
Bridge_Remote_Link_Statistics()
```

Output

```
REMOTE_LINK_STATISTICS_MBEAN
```

Field Name	Description
TA_LMID	Destination logical machine identifier (LMID2) for network connection.
TA_MONINBOUNDNUM	Total Inbound Network Messages since bridge was started.
TA_MONOUTBOUNDNUM	Total Outbound Network Messages since bridge was started.

TA_MONINBOUNDBYT	Total Inbound Network Messages size in bytes since bridge was stated.
TA_MONOUTBOUNDBYT	Total Outbound Network Messages size in bytes since bridge was stated.
TA_SENTNUM	Number of messages sent from the source logical machine to the destination logical machine.
TA_SENTBYT	Number of bytes sent from the source logical machine to the destination logical machine.
TA_SENDNUM	Number of messages sends from the source logical machine to the destination logical machine.
TA_SENDBYT	Number of bytes sends from the source logical machine to the destination logical machine.
TA_TIMERESTART	Restart Time, in seconds, since 00:00:00 UTC, January 1, 1970
TA_CURTIME	Current time, in seconds, since 00:00:00 UTC, January 1, 1970
TA_CONTIME	Connection time, in seconds, since 00:00:00 UTC, January 1, 1970

Bridge_Queue_Statistics

Syntax

```
Bridge_Queue_Statistics()
```

Output

```
BRIDGE_QUEUE_STATISTICS_MBEAN
```

Field Name	Description
TA_MSG_QNUM	Number of messages currently on the queue.

Tuxedo_ECM_Bridge

Syntax

```
Tuxedo_ECM_Bridge()
```

Output

```
TUXEDO_ECM_BRIDGE_MBEAN
```

Field Name	Description
TA_LMID	For information about these MIB attributes in T_MACHINE, refer to Oracle Tuxedo File Formats, Data Descriptions, MIBs, and System Processes Reference.
TA_NADDR	
TA_BRIDGE	
TA_NLSADDR	
TA_FADDR	
TA_FRANGE	
TA_MINENCRYPTBITS	
TA_MAXENCRYPTBITS	

ServerMbean

Inherited from MBean

GetParameters

Syntax

```
GetParameters()
```

Output

A dictionary which includes all attributes and values.

This function invokes JMX interface getParameters of Server Mbean.

GetParameter

Syntax

```
GetParameter(name)
```

This function invokes JMX interface getParameter of Server Mbean.

SetParameters

Syntax

```
SetParameters(data)
```

Input

data: A dictionary which includes the attributes and values to be set.

This function invokes JMX interface setParameters of Server Mbean.

SetParameter

Syntax

```
SetParameter(name, value)
```

This function invokes JMX interface setParameter of Server Mbean.

Delete

Syntax

```
Delete()
```

This function invokes JMX interface delete of Server Mbean.

SetServiceParam

Syntax

```
SetServiceParam(serviceName,parameterName,parameterValue)
```

Invokes JMX interface setServiceParameter of Server Mbean.

GetServiceParam

Syntax

```
GetServiceParam(serviceName,parameterName)
```

Output

A dictionary includes the attribute name and value.

Invokes JMX interface getServiceParameter of Server Mbean.

DeleteService

Syntax

```
DeleteService(serviceName)
```

Invokes JMX interface deleteService of Server Mbean.

GetServices

Syntax

```
GetServices()
```

Output

A list includes all services' attributes.

Invokes JMX interface getServices of Server Mbean.

SuspendService

Syntax

```
SuspendService(serviceName)
```

Invokes JMX interface suspendService of Server Mbean.

ResumeService

Syntax

```
ResumeService(serviceName)
```

Invokes JMX interface resumeService of Server Mbean.

Server_Statistics

Syntax

```
Server_Statistics()
```

Output

SERVER_STATISTICS_MBEAN

Field Name	Description

`TA_BASESRVID`	For information about these MIB attributes in `T_SERVER`, refer to Oracle Tuxedo File Formats, Data Descriptions, MIBs, and System Processes Reference.
`TA_SRVID`	
`TA_STATE`	
`TA_NUMDISPATCHTHREADS`	
`TA_NUMCONV`	
`TA_NUMDEQUEUE`	
`TA_NUMENQUEUE`	
`TA_NUMPOST`	
`TA_NUMREQ`	
`TA_NUMSUBSCRIBE`	
`TA_NUMTRAN`	
`TA_NUMTRANABT`	
`TA_NUMTRANCMT`	
`TA_TOTWORKL`	
`TA_TIMERESTART`	
`TA_CURTIME`	

Service_Statistics

Syntax:

```
Service_Statistics()
```

Output

```
SERVICE_STATISTICS_MBEAN
```

Field Name	Description
TA_SERVICENAME	Service name
TA_SRVID	Unique (within the server group) server identification number.
TA_TOTMSGSIZEMEGA	Total Message size since service was started. The unit is Mega
TA_TOTMSGSIZEBYTE	Total Message size, since service was started, in byte mod 1048576.
TA_TOTEXECTIMESEC	Total execution time since service was started. The unit is seconds.
TA_TOTEXECTIMEUSEC	Total execution time, since service was started, in microseconds mod 1000000.
TA_TOTCPUTIMESEC	Total CPU time since service was started. The unit is seconds.
TA_TOTCPUTIMEUSEC	Total CPU time, since service was started, in microseconds mod 1000000.
TA_TOTSUCCNUM	Total successes request number since service was started.
TA_TOTSFAILNUM	Total system failure request number since service was started.
TA_TOTUFAILNUM	Total user failure request number since service was started.
TA_TIMERESTART	Time, in seconds, since 00:00:00 UTC, January 1, 1970, as returned by the time(2) system call on T_SERVER:TA_LMID, when the server was last started or restarted.
TA_CURTIME	Current time, in seconds, since 00:00:00 UTC, January 1, 1970, as returned by the time(2) system call on T_SERVER:TA_LMID.

IPC_Queue_Statistics

Syntax

```
IPC_Queue_Statistics()
```

Output

IPC_QUEUE_STATISTICS_MBEAN

Field Name	Description
TA_RQADDR	Symbolic address of the request queue for an active server offering this service. See T_SERVER:TA_RQADDR for more information on this attribute.
TA_SRVID	Unique (within the server group) server identification number for an active server offering this service. See T_SERVER:TA_SRVID for more information on this attribute.
TA_MSG_QNUM	Number of messages currently on the queue.

Tuxedo_servers

Syntax

Tuxedo_servers()

Output

TUXEDO_ECM_SERVERS_MBEAN

Field Name	Description
TA_SERVERNAME	For information about these MIB attributes in T_SERVER, refer to Oracle Tuxedo File Formats, Data Descriptions, MIBs, and System Processes Reference.
TA_SRVGRP	
TA_SRVID	
TA_CLOPT	
TA_SEQUENCE	
TA_MIN	
TA_MAX	
TA_ENVFILE	

`TA_CONV`	For information about these MIB attributes in `T_SERVER`, refer to Oracle Tuxedo File Formats, Data Descriptions, MIBs, and System Processes Reference.
`TA_RQADDR`	
`TA_RQPERM`	
`TA_REPLYQ`	
`TA_RPPERM`	
`TA_RCMD`	
`TA_MAXGEN`	
`TA_GRACE`	
`TA_RESTART`	
`TA_SYSTEM_ACCESS`	
`TA_MAXDISPATCHTHREADS`	
`TA_MINDISPATCHTHREADS`	
`TA_THREADSTACKSIZE`	
`TA_SEC_PRINCIPAL_NAME`	
`TA_SEC_PRINCIPAL_LOCATION`	
`TA_SEC_PRINCIPAL_PASSVAR`	
`TA_SICACHEENTRIESMAX`	
`TA_CONCURR_STRATEGY`	

SystemServerMbean

Inherited from MBean

GetParameters

Syntax

```
GetParameters()
```

Output:

A dictionary which includes all attributes and values.

This function invokes JMX interface getParameters of System Server Mbean.

GetParameter

Syntax

```
GetParameter(name)
```

This function invokes JMX interface getParameter of System Server Mbean.

SetParameters

Syntax

```
SetParameters(data)
```

Input

data: A dictionary which includes the attributes and values to be set.

This function invokes JMX interface setParameters of System Server Mbean.

SetParameter

Syntax

```
SetParameter(name, value)
```

This function invokes JMX interface setParameter of System Server Mbean.

Delete

Syntax

```
Delete()
```

This function invokes JMX interface delete of System Server Mbean.

System_Server_Number

Syntax

```
System_Server_Number()
```

Output

```
SYSTEM_SERVER_NUMBER_MBEAN
```

Field Name	Description
TA_SRVID	For information about these MIB attributes in T_SERVER, refer to Oracle Tuxedo File Formats, Data Descriptions, MIBs, and System Processes Reference.
TA_BASESRVID	
TA_STATE	

TMSMbean

Inherited from MBean

GetParameters

Syntax

```
GetParameters()
```

Output

A dictionary which includes the attributes.

This function invokes JMX interface getParameters() of TMS Mbean.

GetParameter

Syntax

```
GetParameter(name)
```

This function invokes JMX interface getParameter() of TMS Mbean.

SetParameters

Syntax

```
SetParameters(data)
```

Input

data: A dictionary which includes the attributes.

This function invokes JMX interface setParameters() of TMS Mbean.

SetParameter

Syntax

```
SetParameter(name, value)
```

This function invokes JMX interface setParameter() of TMS Mbean.

Delete

Syntax:

```
Delete()
```

This function invokes JMX interface delete() of TMS Mbean.

TMS_Transaction_Statistics

Syntax:

```
TMS_Transaction_Statistics()
```

Output:

```
TMS_TRANSACTION_STATISTICS_MBEAN
```

Field Name	Description
TA_SRVID	For information about these MIB attributes in T_SERVER, refer to Oracle Tuxedo File Formats, Data Descriptions, MIBs, and System Processes Reference.
TA_BASESRVID	
TA_GRPNO	
TA_NUMTRANABT	
TA_NUMTRANCMT	
TA_TIMERESTART	
TA_CURTIME	
TA_STATE	

Tuxedo_TMS

Syntax

```
Tuxedo_TMS()
```

Output

Field Name	Description

TA_SRVGRP	For information about the MIB attributes, refer to Oracle Tuxedo File Formats, Data Descriptions, MIBs, and System Processes Reference.
TA_GRPNO	
TA_LMID	
TA_TMSNAME	
TA_TMSCOUNT	
TA_OPENINFO	
TA_CLOSEINFO	

TDomainGatewayMbean

Inherited from MBean

GetParameters

Syntax

```
GetParameters()
```

Output

A dictionary which includes the attributes.

This function invokes JMX interface getParameters() of /T domain gateway Mbean.

GetParameter

Syntax

```
GetParameter(name)
```

This function invokes JMX interface getParameter() of /T domain gateway Mbean.

SetParameters

Syntax

```
SetParameters(data)
```

Input

data: A dictionary which includes the attributes.

This function invokes JMX interface setParameters() of /T domain gateway Mbean.

SetParameter

Syntax

```
SetParameter(name, value)
```

This function invokes JMX interface setParameter() of /T domain gateway Mbean.

Delete

Syntax

```
Delete()
```

This function invokes JMX interface delete() of /T domain gateway Mbean.

GetACLs

Syntax

```
GetACLs(filter)
```

Input:

filter: A dictionary which includes the attributes and values.

Output :

ACL list

This function invokes JMX interface getACLs() of /T domain gateway Mbean.

AddACL

Syntax

```
AddACL(parameters)
```

Input:

parameters: A dictionary which includes the attributes and values.

This function invokes JMX interface addACL() of /T domain gateway Mbean.

DeleteACL

Syntax

```
DeleteACL(ACLName)
```

Input

ACLName: name of ACL which is to be deleted.

This function invokes JMX interface deleteACL () of /T domain gateway Mbean.

UpdateACL

Syntax

```
UpdateACL(ACLName,parameters)
```

Input

ACLName: name of ACL which is to be updated.

parameters: A dictionary which includes the attributes and values.

This function invokes JMX interface updateACL () of /T domain gateway Mbean.

GetEventIns

Syntax

```
GetEventIns(filter)
```

Input

filter: A dictionary which includes the attributes and values.

Output

Events list

This function invokes JMX interface getEventInss() of /T domain gateway Mbean.

AddEventIn

Syntax

```
AddEventIn(parameters)
```

Input

parameters: A dictionary which includes the attributes and values.

This function invokes JMX interface addEventIn() of /T domain gateway Mbean.

DeleteEventIn

Syntax

```
DeleteEventIn(eventName, lAccessPoint)
```

Input

eventName: name of a particular remote event, which should be subscribed by local domain subscriber.

1AccessPoint: the name of a local domain access point, which is allowed to receive this event from remote domain(s)

This function invokes JMX interface deleteEventIn () of /T domain gateway Mbean.

GetEventOuts

Syntax

```
GetEventOuts(filter)
```

Input

filter: A dictionary which includes the attributes and values.

Output

Events list

This function invokes JMX interface getEventOutss() of /T domain gateway Mbean.

AddEventOut

Syntax

    AddEventOut(parameters)

Input

parameters: A dictionary which includes the attributes and values.

This function invokes JMX interface addEventOut() of /T domain gateway Mbean.

DeleteEventOut

Syntax

    DeleteEventOut(eventName,lAccessPoint,rAccessPointList)

Input

- eventName: the name of a particular local event, which can be posted to remote domains.

- lAccessPoint: the name of a local domain access point, which is allowed to send this event to remote domains.

- rAccessPointList: the remote domain access point which this event is sent to.

This function invokes JMX interface deleteEventOut () of /T domain gateway Mbean.

GetExports

Syntax

    GetExports(filter)

Input

filter: A dictionary which includes the attributes and values.

Output

Local resources list

This function invokes JMX interface getExports() of /T domain gateway Mbean.

AddExport

Syntax

```
AddExport(parameters)
```

Input:

parameters: A dictionary which includes the attributes and values.

This function invokes JMX interface addExport() of /T domain gateway Mbean.

DeleteExport

Syntax

```
DeleteExport(resourceName,lAccessPoint)
```

Input:

- resourceName: The local resource name
- lAccessPoint: The local access point name through which this local resource is available.

This function invokes JMX interface deleteExport () of /T domain gateway Mbean.

UpdateExport

Syntax

```
UpdateExport (resourceName, lAccessPoint, parameters)
```

Input

- resourceName: The local resource name.
- lAccessPoint: The local access point name through which this local resource is available.
- parameters: A dictionary which includes the attributes and values.

This function invokes JMX interface updateExport () of /T domain gateway Mbean.

GetImports

Syntax

```
GetImports(filter)
```

Input

filter: A dictionary which includes the attributes and values.

Output

Remote resources list

This function invokes JMX interface getImports() of /T domain gateway Mbean.

AddImport

Syntax

```
AddImport(parameters)
```

Input

parameters: A dictionary which includes the attributes and values.

This function invokes JMX interface addImport() of /T domain gateway Mbean.

DeleteImport

Syntax

```
DeleteImport(resourceName,lAccessPoint, rAccessPointList)
```

Input

- resourceName: The remote resource name used for entries of resource type SERVICE (the service name), QSPACE (the queue space name), and QNAME (the queue name).

- lAccessPoint: The name of the local domain access point through which this remote resource should be made available.

- rAccessPointList: the remote domain access point through which this remote resource should be imported.

This function invokes JMX interface deleteImport () of /T domain gateway Mbean.

UpdateImport

Syntax

```
UpdateImport (resourceName,lAccessPoint, rAccessPointList, parameters)
```

Input

- resourceName: The remote resource name used for entries of resource type SERVICE (the service name), QSPACE (the queue space name), and QNAME (the queue name).

- lAccessPoint: The name of the local domain access point through which this remote resource should be made available.

- rAccessPointList: the remote domain access point through which this remote resource should be imported.

- parameters: A dictionary which includes the attributes and values.

This function invokes JMX interface updateImport () of /T domain gateway Mbean.

GetLocals

Syntax

```
GetLocals(filter)
```

Input

filter: A dictionary which includes the attributes and values.

Output

local domain access points list

This function invokes JMX interface getLocals() of /T domain gateway Mbean.

AddLocal

Syntax

```
AddLocal(parameters)
```

Input

parameters: A dictionary which includes the attributes and values.

This function invokes JMX interface addLocal() of /T domain gateway Mbean.

DeleteLocal

Syntax

```
DeleteLocal(accessPoint)
```

Input

`accessPoint`: a user-specified local domain access point identifier

This function invokes JMX interface deleteLocal () of /T domain gateway Mbean.

UpdateLocal

Syntax

```
UpdateLocal (accessPoint, parameters)
```

Input

- `accessPoint`: a user-specified local domain access point identifier

- `parameters`: A dictionary which includes the attributes and values.

This function invokes JMX interface updateLocal () of /T domain gateway Mbean.

GetPasswords

Syntax

```
GetPasswords(filter)
```

Input

`filter`: A dictionary which includes the attributes and values.

Output

Password list

This function invokes JMX interface getPasswords() of /T domain gateway Mbean.

AddPassword

Syntax

```
AddPassword(parameters)
```

Input

parameters: A dictionary which includes the attributes and values.

This function invokes JMX interface addPassword() of /T domain gateway Mbean.

DeletePassword

Syntax

```
DeletePassword(lAccessPoint, rAccessPoint)
```

Input

- lAccessPoint: The name of the local domain access point to which the password applies.

- rAccessPoint: The name of the remote domain access point to which the password applies.

This function invokes JMX interface deletePassword () of /T domain gateway Mbean.

ReCryptPasswords

Syntax

```
ReCryptPasswords(lAccessPoint, rAccessPoint)
```

Input

- lAccessPoint: The name of the local domain access point to which the password applies.

- rAccessPoint: The name of the remote domain access point to which the password applies.

This function invokes JMX interface deletePassword () of /T domain gateway Mbean.

GetRemotes

Syntax

```
GetRemotes(filter)
```

Input

`filter`: A dictionary which includes the attributes and values.

Output

Remote domain access points list

This function invokes JMX interface getRemotes() of /T domain gateway Mbean.

AddRemote

Syntax

```
AddRemote(parameters)
```

Input

`parameters`: A dictionary which includes the attributes and values.

This function invokes JMX interface addRemote() of /T domain gateway Mbean.

DeleteRemote

Syntax

```
DeleteRemote(accessPoint,dmtype)
```

Input

- `accessPoint`: a user-specified remote domain access point identifier

- `dmtype` : The type of domain for this remote domain access point

This function invokes JMX interface deleteRemote () of /T domain gateway Mbean.

UpdateRemote

Syntax

    UpdateRemote (accessPoint,dmtype,parameters)

Input

- accessPoint: a user-specified remote domain access point identifier

- dmtype : The type of domain for this remote domain access point

- parameters: A dictionary which includes the attributes and values.

This function invokes JMX interface updateRemote () of /T domain gateway Mbean.

GetResources

Syntax

    GetResources(filter)

Input

filter: A dictionary which includes the attributes and values.

Output

Resource list

This function invokes JMX interface getResources() of /T domain gateway Mbean.

SetResources

Syntax

    SetResources(parameters)

Input

parameters: A dictionary which includes the attributes and values.

This function invokes JMX interface setResources() of /T domain gateway Mbean.

GetRoutings

Syntax

```
GetRoutings(filter)
```

Input

`filter`: A dictionary which includes the attributes and values.

Output

Routing list

This function invokes JMX interface getRoutings() of /T domain gateway Mbean.

AddRouting

Syntax

```
AddRouting(parameters)
```

Input

`parameters`: A dictionary which includes the attributes and values.

This function invokes JMX interface addRouting() of /T domain gateway Mbean.

DeleteRouting

Syntax

```
DeleteRouting(routingName, bufType)
```

Input

- `routingName`: The name of the routing criteria table entry

- `bufType`: The type of buffer

This function invokes JMX interface deleteRouting () of /T domain gateway Mbean.

UpdateRouting

Syntax

UpdateRouting (routingName, bufType, parameters)

Input

- routingName: The name of the routing criteria table entry

- bufType: The type of buffer

- parameters: A dictionary which includes the attributes and values.

This function invokes JMX interface updateRouting () of /T domain gateway Mbean.

GetTDomain

Syntax

GetTDomains(filter)

Input

filter: A dictionary which includes the attributes and values.

Output

TDomain specific configuration list

This function invokes JMX interface getTDomain() of /T domain gateway Mbean.

AddTDomain

Syntax

AddTDomain(parameters)

Input

parameters: A dictionary which includes the attributes and values.

This function invokes JMX interface addTDomain() of /T domain gateway Mbean.

DeleteTDomain

Syntax

```
DeleteTDomain (accessPoint, nwaddr, lAccessPoint)
```

Input

- `accessPoint`: The local or remote domain access point name for which this entry provides the TDomain-specific configuration data. bufType: The type of buffer

- `nwaddr`: Specifies the network address associated with the access point

- `lAccessPoint`: a local domain access point found in the DM_LOCAL section for a TDomain session record in the BDMCONFIG file.

This function invokes JMX interface deleteTDomain () of /T domain gateway Mbean.

SetTDomain

Syntax

```
SetTDomain (accessPoint, nwaddr, lAccessPoint,parameters)
```

Input

- `accessPoint`: The local or remote domain access point name for which this entry provides the TDomain-specific configuration data.

- `nwaddr`: Specifies the network address associated with the access point

- `lAccessPoint`: a local domain access point found in the DM_LOCAL section for a TDomain session record in the BDMCONFIG file.

- `parameters`: A dictionary which includes the attributes and values.

This function invokes JMX interface SetTDomain () of the /T domain gateway Mbean.

Remote_Link_Statistics

Syntax

```
Remote_Link_Statistics()
```

Output

REMOTE_LINK_STATISTICS_MBEAN

Field Name	Description
TA_DMRACCESSPOINT	Remote Domain ID
TA_STATE	Connection Status
TA_MONINBOUNDNUM	Number of inbound network messages
TA_MONOUTBOUNDNUM	Number of outbound network messages
TA_MONINBOUNDBYT	Inbound network message size in bytes
TA_MONOUTBOUNDBYT	Outbound network message size in bytes
TA_MONNUMPEND	Pending Network Messages
TA_MONBYTESPEND	Pending Network Messages Bytes
TA_MONNUMWAITRPLY	Outstanding Network Requests
TA_CONTIME	Connection time, in seconds, since 00:00:00 UTC, January 1, 1970

Domain_Gateway_Transaction_Statistics

Syntax:

Domain_Gateway_Transaction_Statistics()

Output:

DOMAIN_GATEWAY_TRANSACTION_STATISTICS_MBEAN

Field Name	Description

TA_NUMTRANCMT	For information about the MIB attributes, refer to Oracle Tuxedo File Formats, Data Descriptions, MIBs, and System Processes Reference.
TA_NUMTRANABT	
TA_TIMERESTART	
TA_CURTIME	

EventBrokerMbean

Inherited from MBean

GetParameters

Syntax

```
GetParameters()
```

Output

A dictionary which includes the attributes.

This function invokes JMX interface getParameters() of event broker Mbean.

GetParameter

Syntax

```
GetParameter(name)
```

This function invokes JMX interface getParameter() of event broker Mbean.

SetParameters

Syntax

```
SetParameters(data)
```

Input

data: A dictionary which includes the attributes.

This function invokes JMX interface setParameters() of event broker Mbean.

SetParameter

Syntax

```
SetParameter(name, value)
```

This function invokes JMX interface setParameter() of event broker Mbean.

Delete

Syntax

```
Delete()
```

This function invokes JMX interface delete() of event broker Mbean.

Event_Statistics

Syntax

```
Event_Statistics()
```

Output

```
EVENT_STATISTICS_MBEAN
```

Field Name	Description
TA_MONEVTSVCNUM	Notified Events
TA_MONEVTUNSOLNUM	Notified Events by Unsolicited Message
TA_MONEVTQUENUM	Notified Events by Queue Message
TA_MONEVTCMDNUM	Notified Events by Command Line
TA_MONEVTULOGNUM	Notified Events by USERLOG
TA_TIMERESTART	Restart Time, in seconds, since 00:00:00 UTC, January 1, 1970
TA_CURTIME	Current time, in seconds, since 00:00:00 UTC, January 1, 1970

QueueServerMbean

Inherited from MBean

GetParameters

Syntax

```
GetParameters()
```

Output

A dictionary which includes the attributes.

This function invokes JMX interface getParameters() of OTMQ Mbean.

GetParameter

Syntax

```
GetParameter(name)
```

This function invokes JMX interface getParameter() of OTMQ Mbean.

SetParameters

Syntax

```
SetParameters(data)
```

Input

data: A dictionary which includes the attributes.

This function invokes JMX interface setParameters() of OTMQ Mbean.

SetParameter

Syntax

```
SetParameter(name, value)
```

This function invokes JMX interface setParameter() of OTMQ Mbean.

Delete

Syntax

```
Delete()
```

This function invokes JMX interface delete() of OTMQ Mbean.

Queue_Space_Statistics

Syntax

```
Queue_Space_Statistics()
```

Output

```
QUEUE_SPACE_STATISTICS_MBEAN
```

Field Name	Description
TA_APPQSPACENAME	Following MIB Attributes in T_APPQSPACE is returned. For information about the attributes, refer to Oracle Tuxedo File Formats, Data Descriptions, MIBs, and System Processes Reference.
TA_STATE	
TA_CURACTIONS	
TA_CURCURSORS	
TA_CURHANDLES	
TA_CURMEMNONPERSIST	
TA_CURMSG	
TA_CURPROC	
TA_CURQUEUES	
TA_CURTMPQUEUES	
TA_CURTRANS	

Queue_Space_Peak

Syntax

```
Queue_Space_Peak()
```

Output

```
QUEUE_SPACE_PEAK_MBEAN
```

Field Name	Description
TA_APPQSPACENAME	Following MIB Attributes in T_APPQSPACE is returned. For information about the attributes, refer to Oracle Tuxedo File Formats, Data Descriptions, MIBs, and System Processes Reference.
TA_HWACTIONS	
TA_HWCURSORS	
TA_HWHANDLES	
TA_HWMEMNONPERSIST	
TA_HWMSG	
TA_HWOWNERS	
TA_HWPROC	
TA_HWQUEUES	
TA_HWTMPQUEUES	
TA_HWTRANS	

Queue_Statistics

Syntax

```
Queue_Statistics()
```

Output

```
QUEUE_STATISTICS_MBEAN
```

Field Name	Description
TA_APPQNAME	Following MIB Attributes in T_APPQ is returned. For information about the attributes, refer to Oracle Tuxedo File Formats, Data Descriptions, MIBs, and System Processes Reference.
TA_APPQSPACENAME	
TA_CURBLOCKS	
TA_CURNONPERSISTBYTES	
TA_CURMSG	
TA_CURNONPERSISTMSG	

Tuxedo_Q_QSPACE

Syntax

Tuxedo_Q_QSPACE()

Output

TUXEDO_ECM_SLASH_QUEUE_QSPACE_MBEAN

Field Name	Description

`TA_APPQSPACENAME`	Following MIB Attributes in T_APPQSPACE is returned. For information about the attributes, refer to Oracle Tuxedo File Formats, Data Descriptions, MIBs, and System Processes Reference.
`TA_QMCONFIG`	
`TA_LMID`	
`TA_IPCKEY`	
`TA_ERRORQNAME`	
`TA_MAXACTIONS`	
`TA_MAXCURSORS`	
`TA_MAXHANDLES`	
`TA_MAXMSG`	
`TA_MAXOWNERS`	
`TA_MAXPAGES`	
`TA_MAXPROC`	
`TA_MAXQUEUES`	
`TA_MAXTMPQUEUES`	
`TA_MAXTRANS`	
`TA_MEMNONPERSIST`	

Tuxedo_Q_QUEUE

Syntax

```
Tuxedo_Q_QUEUE()
```

Output

```
TUXEDO_ECM_SLASH_QUEUE_QUEUE_MBEAN
```

Field Name	Description

TA_APPQNAME	Following MIB Attributes in T_APPQ is returned. For information about the attributes, refer to Oracle Tuxedo File Formats, Data Descriptions, MIBs, and System Processes Reference.
TA_APPQSPACENAME	
TA_QMCONFIG	
TA_LMID	
TA_APPQORDER	

WebServiceGatewayMbean

GetParameter

Syntax

```
GetParameter(parameterName)
```

This function invokes JMX interface getParameter(parameterName) of Tuxedo Web Service Gateway Mbean.

GetParameters

Syntax

```
GetParameters(parameterName)
```

This function invokes JMX interface getParameters(parameterName) of Tuxedo Web Service Gateway Mbean.

SetParameter

Syntax

```
SetParameter(parameterName, parameterValue)
```

This function invokes JMX interface setParameter(parameterName, parameterValue) of Tuxedo Web Service Gateway Mbean.

SetParameters

Syntax

```
SetParameters(date)
```

Input

The parameter "data" type is dictionary which includes parameter names and values. It'll be converted to CompositeData type to invoke JMX interface.

This function invokes JMX interface setParameters(parameters) of Tuxedo Web Service Gateway Mbean.

Delete

Syntax

```
Delete()
```

This function invokes JMX interface delete() of Tuxedo Web Service Gateway Mbean.

Web_Service_Gateway_Statistics

Syntax

```
Web_Service_Gateway_Statistics()
```

Output

```
WEBSERVICE_GATEWAY_STATISTICS_MBEAN
```

Field Name	Description
TA_MONTHRNUM	Active Threads
TA_MONINTALTIME	Inbound Process Time
TA_MONINREQNUM	Inbound request number
TA_MONOUTREQNUM	Outbound request number
TA_MONOUTALTIME	Outbound Process Time

TA_MONINOWFAIL	Inbound One-Way Failures
TA_MONINOWSUCC	Inbound One-Way Successes
TA_MONINRPCFAIL	Inbound RPC Failures
TA_MONINRPCSUCC	Inbound RPC Successes
TA_MONOUTOWFAIL	Outbound One-Way Failures
TA_MONOUTOWSUCC	Outbound One-Way Successes
TA_MONOUTRPCFAIL	Outbound RPC Failures
TA_MONOUTRPCSUCC	Outbound RPC Successes
TA_MONINBOUNDPEND	Inbound Pending Requests
TA_MONOUTBOUNDPEND	Outbound Pending Requests
TA_TIMERESTART	Restart Time, in seconds, since 00:00:00 UTC, January 1, 1970
TA_CURTIME	Current time, in seconds, since 00:00:00 UTC, January 1, 1970

WorkstationListenerMbean

GetParameter

Syntax

```
GetParameter(parameterName)
```

This function invokes JMX interface getParameter(parameterName) of Tuxedo Workstation Listener Mbean.

GetParameters

Syntax

```
GetParameters()
```

Output

The original type is CompositeData and the final output type is converted to dictionary.

This function invokes JMX interface getParameters() of Tuxedo Workstation Listener Mbean.

SetParameter

Syntax

```
SetParameter(parameterName, parameterValue)
```

This function invokes JMX interface setParameter(parameterName, parameterValue) of Tuxedo Workstation Listener Mbean.

SetParameters

Syntax

```
SetParameters(date)
```

Input

The parameter "data" type is dictionary which includes parameter names and values. It'll be converted to CompositeData type to invoke JMX interface.

This function invokes JMX interface setParameters(parameters) of Tuxedo Workstation Listener Mbean.

Delete

Syntax

```
Delete()
```

This function invokes JMX interface delete() of Tuxedo Workstation Listener Mbean.

Get Handler Parameter

Syntax

```
GetHandlerParameter(clientId, parameterName)
```

This function invokes JMX interface getHandlerParameter() of Tuxedo Workstation Listener Mbean.

Get Handlers

Syntax

```
GetHandlers(ClientId)
```

Output

The original type is TabularData and the final output type is converted to list.

This function invokes JMX interface getHandlers(clientId) of Tuxedo Workstation Listener Mbean.

Suspend Handler

Syntax

```
SuspendHandler(clientId)
```

This function invokes JMX interface suspendHandler(clientId) of Tuxedo Workstation Listener Mbean.

Resume Handler

Syntax

```
ResumeHandler(clientId)
```

This function invokes JMX interface resumeHandler(clientId) of Tuxedo Workstation Listener Mbean.

Kill Handler

Syntax

```
KillHandler(clientId)
```

This function invokes JMX interface killHandler(clientId) of Tuxedo Workstation Listener Mbean.

Get Clients

Syntax

```
GetClients(wshClientID)
```

Output

The original type is TabularData and the final output type is converted to list.

This function invokes JMX interface getWSClients(clientId) of Tuxedo Workstation Listener Mbean.

Suspend Client

Syntax

```
SuspendClient(clientId)
```

This function invokes JMX interface suspendClient(clientId) of Tuxedo Workstation Listener Mbean.

Resume Client

Syntax

```
ResumeClient(clientId)
```

This function invokes JMX interface resumeClient(clientId) of Tuxedo Workstation Listener Mbean.

Kill Client

Syntax

```
KillClient(clientId)
```

This function invokes JMX interface killClient(clientId) of Tuxedo Workstation Listener Mbean.

Workstation_Listener_Statistics

Syntax

```
Workstation_Listener_Statistics()
```

Output

```
LISTENER_STATISTICS_MBEAN
```

Field Name	Description
TA_CURHANDLERS	This field displays the number of currently active handlers associated with this workstation listener (WSL).
TA_CURCLIENTS	This field displays the number of clients, both native and workstation, currently logged in to this machine.
TA_TOTNUMREQ	Total Request Number
TA_OUTSREQNUM	Outstanding Requests
TA_TIMERESTART	This field displays the amount of time since restart.
TA_CURTIME	This field displays the current time (in seconds) since 00:00:00 UTC, January 1, 1970

JoltListenerMbean

GetParameter

Syntax

```
GetParameter(parameterName)
```

This function invokes JMX interface getParameter(parameterName) of Tuxedo Jolt Listener Mbean.

GetParameters

Syntax

```
GetParameters()
```

Output

The original type is CompositeData and the final output type is converted to dictionary.

This function invokes JMX interface getParameters() of Tuxedo Jolt Listener Mbean.

SetParameter

Syntax

```
SetParameter(parameterName, parameterValue)
```

This function invokes JMX interface setParameter(parameterName, parameterValue) of Tuxedo Jolt Listener Mbean.

SetParameters

Syntax

```
SetParameters(date)
```

Input:

The parameter "data" type is dictionary which includes parameter names and values. It'll be converted to CompositeData type to invoke JMX interface.

This function invokes JMX interface setParameters(parameters) of Tuxedo Jolt Listener Mbean.

Delete JSL

Syntax

```
Delete ()
```

This function invokes JMX interface delete() of Tuxedo Jolt Listener Mbean.

Get Handlers

Syntax

```
GetHandlers()
```

Output

The original type is TabularData and the final output type is converted to list.

This function invokes JMX interface getHandlers() of Tuxedo Jolt Listener Mbean.

Suspend Handler

Syntax

```
SuspendHandler(clientId)
```

This function invokes JMX interface suspendHandler(clientId) of Tuxedo Jolt Listener Mbean.

Resume Handler

Syntax

```
ResumeHandler(clientId)
```

This function invokes JMX interface resumeHandler(clientId) of Tuxedo Jolt Listener Mbean.

Jolt_Listener_Statistics

Syntax

```
Jolt_Listener_Statistics()
```

Output

```
LISTENER_STATISTICS_MBEAN
```

Field Name	Description
TA_CURHANDLERS	Active Handlers
TA_CURCLIENTS	Clients

TA_TOTREQNUM	Requests
TA_OUTSREQNUM	Outstanding Requests
TA_TIMERESTART	Restart Time, in seconds, since 00:00:00 UTC, January 1, 1970
TA_CURTIME	Current time, in seconds, since 00:00:00 UTC, January 1, 1970

ARTBatchSystemMbean

Inherited from MBean

GetBatchs

Syntax

```
GetBatchs(batchName, batchID, batchClass, batchOwner)
```

Output

A list which contains result.

This function invokes JMX interface getBatchs() of ART batch system Mbean.

CancelBatch

Syntax

```
CancelBatch(batchName, batchID, batchClass, batchOwner)
```

Output

A list which contains result.

This function invokes JMX interface cancelBatch() of ART batch system.

PurgeBatch

Syntax

```
PurgeBatch(batchName, batchID, batchClass, batchOwner)
```

Output

A list which contains result.

This function invokes JMX interface purgeBatch() of ART batch system Mbean.

HoldBatch

Syntax

```
HoldBatch(batchName, batchID, batchClass, batchOwner)
```

Output

A list which contains result.

This function invokes JMX interface holdBatch () of ART batch system Mbean.

ReleaseBatch

Syntax

```
ReleaseBatch(batchName, batchID, batchClass, batchOwner)
```

Output

A list which contains result.

This function invokes JMX interface releaseBatch() of ART batch system Mbean.

GetBatchSysOuts

Syntax

```
GetBatchSysOuts(batchID)
```

Output

A list which contains result.

This function invokes JMX interface getBatchSysOuts() of ART batch system Mbean.

SubmitBatch

Syntax

```
SubmitBatch (batchScript, batchOwner, batchEJROption,

                    batchShellOption, batchDBLogin, batchMTEnv)
```

Output

A list which contains result.

This function invokes JMX interface submitBatch() of ART batch system Mbean.

GetGDGFiles

Syntax

```
GetGDGFiles(batched, fileName)
```

Output

A dictionary which contains result.

This function invokes JMX interface getGDGFiles() of ART batch system Mbean.

GetBatchFiles

Syntax

```
GetBatchFiles()
```

Output

A list which contains result.

This function invokes JMX interface getBatchFiles () of ART batch system Mbean.