

# **Oracle® Tuxedo System and Applications Monitor Plus**

Release Notes

12c Release 1 (12.1.1.1)

August 2013

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# Oracle TSAM Plus 12*c* Release 1 (12.1.1.1) Release Notes

Oracle TSAM Plus 12*c* Release 1 (12.1.1.1)  
**Date: August 2013**

**Table 1 Revision History**

Revision Date	Summary of Change
August 2013	<ul style="list-style-type: none"><li>• Support for Oracle Tuxedo 11.1.1.2.0 on the HP-UX Itanium 64-bit platform</li><li>• Support for Oracle Tuxedo 9.1 (Linux 32-bit and HP-UX PA-RISC 32-bit only)</li></ul>
May 2013	Support for Oracle Tuxedo 10gR3 on the HP-UX Itanium 64-bit platform
April 2013	Support for Oracle Tuxedo 10gR3
February 2013	Release 12.1.1.1

This topic contains the following sections:

- [About Oracle TSAM Plus](#)
- [Oracle TSAM Plus Software Components](#)
- [Function Matrix](#)
- [Installation Notes](#)

- [Migration Considerations](#)
- [Interoperability](#)
- [Known Issues](#)
- [Oracle TSAM Plus Platform Support](#)

## About Oracle TSAM Plus

Oracle Tuxedo System and Applications Monitor Plus 12c Release 1 (12.1.1.1) provides comprehensive monitoring and reporting for the Oracle Tuxedo system and applications. It includes three components: [Oracle TSAM Plus Agent](#), [Oracle TSAM Plus Manager](#), and [Enterprise Manager for Oracle Tuxedo](#).

Oracle TSAM Plus major features are:

- Call Path Monitoring and Analysis
- Service Monitoring and Statistics
- System Server Monitoring and Statistics
- Transaction Monitoring
- Event Alerts
- Open Plug-in Framework
- Dynamic Monitoring Policy Management
- Web-based Reporting and Management
- Automatic deployment on Web Container and Database
- Access Control for TSAM Plus Artifacts
- LDAP-based authentication
- Group-based authorization
- Monitoring Oracle Tuxedo Application Runtime for CICS and Batch
- Accounting and chargeback monitoring
- Enterprise Manager for Oracle Tuxedo component, which provides:

- Same console for management and monitoring
- Easy Tuxedo target discovery and automatic update
- Monitor health of multiple domains from same console
- Oracle Tuxedo admin console functionality integration to Oracle Enterprise Manager console
- Centralized application management, including pre-defined provision and deployment procedures
- Dynamic resource broker for rule based scale up and scale out of applications
- Integration with OEM SLA and reporting framework
- Support for monitoring Oracle Tuxedo as a JMX compatible target
- Load balancing algorithm based on real time usage information of target nodes
- Ability to monitor and manage all components of Oracle Tuxedo family
- Support for Oracle Tuxedo system and user event monitoring

For more information, see the [Oracle TSAM Plus Console Users Guide](#) and [Enterprise Manager for Oracle Tuxedo User Guide](#).

## Oracle TSAM Plus Software Components

Oracle TSAM Plus software consists of the following components:

- Oracle TSAM Plus Agent

Oracle TSAM Plus agent enables collection of various performance metrics for applications. It includes the following sub-components:

- Oracle TSAM Plus Framework
- Oracle TSAM Plus Default Plug-in
- Local Monitor Server (LMS)
- Tuxedo JMX agent
- `accrpt`, an utility to analyze accounting and chargeback information generated by `-a` option in `servopts(5)`

- Oracle TSAM Plus Manager

Oracle TSAM Plus Manager provides a graphical user interface to correlate and aggregate performance metrics collected from one or more Oracle Tuxedo domains and displays them in real time. It includes the following sub-components:

- Oracle TSAM Plus Console
- Oracle TSAM Plus Data Server
- Enterprise Manager for Oracle Tuxedo

Enterprise Manager for Oracle Tuxedo is an Oracle Enterprise Manager plug-in, by which users are able to monitor and manage Tuxedo product family in a centralized console with other product such as Weblogic Server and Oracle Database.

## Function Matrix

The following function matrix tables show the supported functionalities of Oracle TSAM Plus and Enterprise Manager for Oracle Tuxedo when interoperating with different Oracle Tuxedo family products.



**Table 2 Function Matrix - Monitoring**

Monitored Product	Function	TSAM Plus Console (Tuxedo 10.3/11.1.1.2/11.1.1.3/12.1.1)	Enterprise Manager for Oracle Tuxedo (EM Console)				
			Tuxedo 9.1	Tuxedo 10.3	Tuxedo 11.1.1.2	Tuxedo 11.1.1.3	Tuxedo 12.1.1
Tuxedo Core	Call Path	Yes					
	Call Pattern	Yes					
	Service (real time)	Yes					
	Service (aggregated per collection interval)	Yes Can be implemented by metrics query	Yes	Yes	Yes	Yes	Yes
	Accounting and Chargeback	Yes					
	XA Transaction (real time)	Yes					

**Table 2 Function Matrix - Monitoring**

Monitored Product	Function	TSAM Plus Console (Tuxedo 10.3/11.1.1.2/11.1.1.3/12.1.1)	Enterprise Manager for Oracle Tuxedo (EM Console)				
			Tuxedo 9.1	Tuxedo 10.3	Tuxedo 11.1.1.2	Tuxedo 11.1.1.3	Tuxedo 12.1.1
Tuxedo Core	XA Transaction (aggregated per collection interval)	Yes  Can be implemented by metrics query	Yes	Yes	Yes	Yes	Yes
	Bridge	Yes	Only the availability metrics are supported	Only the availability metrics are supported	Only the availability metrics are supported	Only the availability metrics are supported	Yes
	/T Domain Gateway	Yes	Yes	Yes	Yes	Yes	Yes
	TMQUEUE		Yes	Yes	Yes	Yes	Yes
	JSL/WSL/TMS		Yes	Yes	Yes	Yes	Yes
	Tuxedo User/System Event		Yes  Users must set the environment variable of SNMP_USER_EVENT to "Y".	Yes  Users must set the environment variable of SNMP_USER_EVENT to "Y".	Yes  Users must set the environment variable of SNMP_USER_EVENT to "Y".	Yes  Users must set the environment variable of SNMP_USER_EVENT to "Y".	Yes
	Microsecond Level Metrics	Yes					

Table 2 Function Matrix - Monitoring

Monitored Product	Function	TSAM Plus Console (Tuxedo 10.3/11.1.1.2/11.1.1.3/12.1.1)	Enterprise Manager for Oracle Tuxedo (EM Console)				
			Tuxedo 9.1	Tuxedo 10.3	Tuxedo 11.1.1.2	Tuxedo 11.1.1.3	Tuxedo 12.1.1
TMA	TMA SNA Domain Gateway						Yes
	TMA SNA CRM						Yes
	TMA TCP Domain Gateway						Yes
SALT	GWWS	Yes	Yes	Yes	Yes	Yes	Yes
			Need to install Oracle SALT 2.0 RP011 first	Need to install Oracle SALT 10gR3 (10.3) RP019 first	Need to install Oracle SALT 11gR1 (11.1.1.2) RP011 first	Need to install Oracle SALT 11gR1 (11.1.1.2) RP011 first	
OTMQ			N/A	N/A	N/A	N/A	Yes

**Table 2 Function Matrix - Monitoring**

Monitored Product	Function	TSAM Plus Console (Tuxedo 10.3/11.1.1.2/11.1.1.3/12.1.1)	Enterprise Manager for Oracle Tuxedo (EM Console)				
			Tuxedo 9.1	Tuxedo 10.3	Tuxedo 11.1.1.2	Tuxedo 11.1.1.3	Tuxedo 12.1.1
ART CICS (From Tuxedo 11.1.1.1)	ART CICS Transaction (real time)	Yes	N/A	N/A			
	ART CICS Transaction (aggregated per collection interval)	Yes Can be implemented by metrics query	N/A	N/A			Yes
	ART CICS Terminals	Yes	N/A	N/A			
	ART CICS TSQ/TDQ		N/A	N/A			Yes
	Call path extended API for ART CICS	Supported in 12.1.1 only	N/A	N/A			
ART Batch (From Tuxedo 11.1.1.1)	Job Information	Yes	N/A	N/A			Yes

Table 2 Function Matrix - Monitoring

Monitored Product	Function	TSAM Plus Console (Tuxedo 10.3/11.1.1.2/11.1.1.3/12.1.1)	Enterprise Manager for Oracle Tuxedo (EM Console)				
			Tuxedo 9.1	Tuxedo 10.3	Tuxedo 11.1.1.2	Tuxedo 11.1.1.3	Tuxedo 12.1.1
All	Alert	Yes Basic	Yes Based on EM event/inc ident system. More sophisticated and flexible	Yes Based on EM event/inc ident system. More sophisticated and flexible	Yes Based on EM event/inc ident system. More sophisticated and flexible	Yes Based on EM event/inc ident system. More sophisticated and flexible	Yes Based on EM event/inc ident system. More sophisticated and flexible
All	Monitoring Policy	Yes Users must define their policies first.	Out of box	Out of box	Out of box	Out of box	Out of box

Table 3 Function Matrix - Management

Monitored Product	Function	TSAM Plus Console (Tuxedo 10.3/11.1.1.2/11.1.1.3/12.1.1)	Enterprise Manager for Oracle Tuxedo (EM Console)				
			Tuxedo 9.1	Tuxedo 10.3	Tuxedo 11.1.1.2	Tuxedo 11.1.1.3	Tuxedo 12.1.1
Tuxedo Core	Management functionalities migrated from Tuxedo administration console		Yes	Yes	Yes	Yes	Yes
	Dynamic request broker						Yes

**Table 3 Function Matrix - Management**

Monitored Product	Function	TSAM Plus Console (Tuxedo 10.3/11.1.1.2/11.1.1.3/12.1.1)	Enterprise Manager for Oracle Tuxedo (EM Console)				
			Tuxedo 9.1	Tuxedo 10.3	Tuxedo 11.1.1.2	Tuxedo 11.1.1.3	Tuxedo 12.1.1
ART CICS (From Tuxedo 11.1.1.1)			N/A	N/A			Yes
ART Batch (From Tuxedo 11.1.1.1)	Basic JES Job Operations	Yes	N/A	N/A			Yes
	GDG Management		N/A	N/A			Yes

**Table 4 Function Matrix - Other**

Function	TSAM Plus Console (Tuxedo 10.3/11.1.1.2/11.1.1.3/12.1.1)	Enterprise Manager for Oracle Tuxedo (EM Console)				
		Tuxedo 9.1	Tuxedo 10.3	Tuxedo 11.1.1.2	Tuxedo 11.1.1.3	Tuxedo 12.1.1
Application Package Management/Resource Broker/Dynamic Resource Broker for Tuxedo		Yes	Yes	Yes	Yes	Yes
Application Package Management/Resource Broker/Dynamic Resource Broker for ART CICS/ART Batch		N/A	N/A			Yes
Reporting		Yes	Yes	Yes	Yes	Yes
SLA		Yes	Yes	Yes	Yes	Yes
Customizable Job		Yes	Yes	Yes	Yes	Yes

**Table 4 Function Matrix - Other**

Function	TSAM Plus Console (Tuxedo 10.3/11.1.1.2/11.1.1.3/12.1.1)	Enterprise Manager for Oracle Tuxedo (EM Console)				
		Tuxedo 9.1	Tuxedo 10.3	Tuxedo 11.1.1.2	Tuxedo 11.1.1.3	Tuxedo 12.1.1
One console to monitor Tuxedo, Weblogic Server, and Oracle Database		Yes	Yes	Yes	Yes	Yes
Integration with Tuxedo OVAB Plug-in		N/A	N/A	Yes	Yes	Yes

**Note:** TSAM Plus Console 12.1.1 doesn't support Tuxedo 9.1.

## Installation Notes

Oracle TSAM Plus 12c Release 1 (12.1.1.1) is supported in the following Oracle Tuxedo releases:

- Oracle Tuxedo 12c Release 1 (12.1.1)
- Oracle Tuxedo 11g Release (11.1.1.3.0)
- Oracle Tuxedo 11g Release 1 (11.1.1.2.0)
- Oracle Tuxedo 10g Release 3 (10.3)
- Oracle Tuxedo 9.1

For more information about platforms supported on specific Oracle Tuxedo rolling patch levels, see [Oracle TSAM Plus Supported Platforms, Web Containers, and DBMS](#).

### Notes:

You need to apply a one-off patch before you can use Enterprise Manager for Oracle Tuxedo to monitor and manager Oracle Tuxedo 10.3. The one-off patch **p16532565\_121020\_Generic.zip** is available under `$TSAMDIR/em` after you install the TSAM Plus manager. Extract files and follow the readme.txt to apply the patch.

For more information, see [Oracle TSAM Plus Installation Guide](#).

Enterprise Manager for Oracle Tuxedo is an Oracle Enterprise Manager plug-in. You need to deploy it to Oracle Enterprise Manager. For more information, see [Enterprise Manager for Oracle Tuxedo Deployment Guide](#).

## Migration Considerations

You can migrate from Oracle Tuxedo System and Application Monitor releases to Oracle Tuxedo System and Applications Monitor Plus 12c. The following are supported:

- Export monitored policy sets defined in Oracle TSAM 1.1 or Oracle TSAM 10gR3 to the ones on the Oracle TSAM 1.1/10gR3 Console, and then import the policy sets to Oracle TSAM Plus 12c Release 1 (12.1.1.1) via the Oracle TSAM Plus Console.
- Import alerts defined in Oracle TSAM 1.1/10gR3 using a migration tool provided by Oracle TSAM Plus 12c Release 1 (12.1.1.1).
- Migrate database schema from Oracle TSAM 11g Release 1 (11.1.1) to Oracle TSAM Plus 12c Release 1 (12.1.1.1) using Oracle TSAM Plus 12c Release 1 (12.1.1.1). All configuration and monitoring data in the database are reserved and upgraded after migrating.

## Interoperability

Please note the following:

- Oracle TSAM Plus 12c Release 1 (12.1.1.1) maintains full interoperability with Oracle TSAM 11.1.1.2 and 11.1.1.1.0.
- Oracle TSAM Plus 12c Release 1 (12.1.1.1) Manager can monitor Oracle TSAM 1.1/10gR3 Agent.
- Oracle TSAM Plus 12c Release 1 (12.1.1.1) Manager can report performance metrics (Domain Gateway has been supported since 12.1.1.1 RP004), and alerts collected by Oracle TSAM 1.1/10gR3 Agent.
- Oracle TSAM Plus 12c Release 1 (12.1.1.1) Manager cannot monitor Oracle Tuxedo node status (domain, machine, group, server and service) collected by Oracle TSAM 1.1/10gR3 Agent.
- Policies and alert definitions defined using Oracle TSAM Plus 12c Release 1 (12.1.1.1) console cannot work on an Oracle TSAM 1.1/10gR3 Agent node. Oracle TSAM Plus 12c Release 1 (12.1.1.1) Agent can work with Oracle TSAM 1.1/10gR3 Agent in MP and Domain modes.



- In Oracle TSAM 1.1/10gR3 Agent, UBB LMS configuration requires the following URL:  
`//host:port/tsam/dataserver`, while in Oracle TSAM Plus 12.1.1.1 or 11gR1 Agent, you need to change the URL defined in CLOPT of LMS from  
`//host:port/tsam/dataserver` to `//host:port/tsam`.
- You cannot define policies for Oracle TSAM 1.1/10gR3 Agent in the Oracle TSAM Plus 12.1.1.1 console. You must use the `TMMONITOR` environment variable or the `tmadmin cho` command to define Oracle TSAM 1.1/10gR3 Agent compliant policies.

## Version Supported by Enterprise Manager for Oracle Tuxedo

Enterprise Manager for Oracle Tuxedo supports the following versions of products:

- Oracle Tuxedo 9.1
- Oracle Tuxedo 10gR3 (10.3)
- Oracle Tuxedo 11gR1 (11.1.1.2)
- Oracle Tuxedo 11gR1 (11.1.1.3)
- Oracle Tuxedo 12cR1 (12.1.1.0)
- Oracle SALT 2.0
- Oracle SALT 10gR3 (10.3)
- Oracle SALT 11gR1 (11.1.1.2)
- Oracle SALT 12cR1 (12.1.1.0)
- Oracle Tuxedo Message Queue 12cR1 (12.1.1.0)
- Oracle Tuxedo Application Runtime for CICS and Batch 12cR1 (12.1.1.0)
- Oracle Tuxedo Mainframe Adapters 12cR1 (12.1.1.0)

## Known Issues

The following section describes known problems in Oracle TSAM Plus 12c Release 1 (12.1.1.1). Entries include a description of the problem, and a workaround or solution where appropriate.

Each problem is listed by the Bug ID number. The Bug ID number is provided to facilitate the tracking of these problems.

BugID	Description and Workaround or Solution
1. 16475008	<b>Problem:</b> While browsing TSAM Console pages, you may get an error message “An unknown error occurred during data streaming. Ask your System Administrator to inspect the server-side logs”, and find an exception "java.lang.NoClassDefFoundError: sun/awt/X11GraphicsEnvironment" or "java.lang.InternalError: Can't connect to X11 window server using 'hostname:1.0' as the value of the \$DISPLAY variable." in the server-side log.
	<b>Platform:</b> Unix/Linux
	<b>Workaround:</b> This problem may be caused by an invalid \$DISPLAY environment variable value setting. Do one of the following: <ul style="list-style-type: none"> <li>• Append -Djava.awt.headless=true to JAVA_OPTS for Tomcat or JAVA_OPTIONS for Weblogic, or</li> <li>• Run xclock to see if \$DISPLAY is running. If xclock runs successfully, the \$DISPLAY environment variable value setting is correct; otherwise, set a valid \$DISPLAY environment variable value.</li> </ul>
2. 16470085	<b>Problem:</b> Starting up the target of Tuxedo system or user server which requires additional environment variables from Enterprise Manager target homepage fails.
	<b>Platform:</b> Generic
	<b>Workaround:</b> Define the additional environment variables in the ENVFILE file of the server in UBBCONFIG file.
3. 16096011	<b>Problem:</b> On some particular machines, if your \$HOME directory does not exist or is not mounted correctly, uninstallation of Oracle TSAM Plus using GUI mode may not succeed.
	<b>Platform:</b> Generic
	<b>Workaround:</b> Make sure your \$HOME directory has been mounted correctly before uninstalling the Oracle TSAM Plus

BugID	Description and Workaround or Solution
4. 16075493	<b>Problem:</b> If Gnome or Twm desktop environment is used, the JVM used by TSAM Plus installer crashes.
	<b>Platform:</b> Solaris SPARC
	<b>Workaround:</b> Use CDE desktop environment instead.
5. 15946355	<b>Problem:</b> Sometimes after uninstalling TSAM Plus agent, you cannot install TSAM Plus again.
	<b>Platform:</b> Generic
	<b>Workaround:</b> Remove the TSAM Plus directory manually if some files cannot be cleaned up after uninstallation.
6. 15932182	<b>Problem:</b> When TSAM application is running under Tomcat and Windows 2008 Server, if you use IE 8.0 to browse TSAM application, the web page may be truncated when you click <b>Detach</b> to highlight a table and then click <b>Detach</b> again or press <b>Esc</b> to restore the table.
	<b>Platform:</b> Windows 2008
	<b>Workaround:</b> You can click the Browser Refresh button, or use IE 9.0 (or above) or Firefox instead.
7. 14485664	<b>Problem:</b> You cannot monitor any ART JES metrics if the timezone of machines on which OMS and Oracle Database are running is different.
	<b>Platform:</b> Generic
	<b>Workaround:</b> Use the same timezone and synchronize the clock of machines on which OMS and database are running.
8. 17195110	<b>Problem:</b> The Tomcat version embedded in TSAM 12c installer, Tomcat 7.0.25, has a denial of service <a href="#">CVE-2012-3544</a> security vulnerability.
	<b>Platform:</b> Generic
	<b>Workaround:</b> After installing TSAM 12c, upgrade Tomcat version from 7.0.25 to 7.0.31 or later. For more information, see the <a href="#">Apache Tomcat official web site</a> .

BugID	Description and Workaround or Solution
9. 16801496	<b>Problem:</b> After Oracle TSAM plus RP010 is installed, policy and alert definitions can be set longer than 4KB from the Oracle TSAM plus console. However, if the Policy definition is longer than 8KB, Oracle Tuxedo servers can potentially core dump on HP-UX and IBM AIX platforms (due to an issue in API FML function Fboolco()/Fboolco32()).
	<b>Platform(s):</b> IBM AIX and HP-UX
	<p><b>Workaround:</b> When defining an Oracle TSAM plus policy and alert definition, avoid selecting excessive groups and servers that may lead to a policy length longer than 8KB. It is recommended that you do the following:</p> <ul style="list-style-type: none"> <li>• Try not to select "All", as the effect is nearly the same as selecting nothing at the machine/group/server level. Selecting "All" will likely cause a long policy length.</li> <li>• Split one policy into several policies when applying to a large number of groups and servers.</li> </ul>

## Oracle TSAM Plus Platform Support

Oracle TSAM Plus 12c Release 1 (12.1.1.1) supported platforms are listed in [Appendix A: Oracle TSAM Plus 12c Release 1 \(12.1.1.1\) Supported Platforms](#) in the [Oracle TSAM Plus Installation Guide](#).

## See Also

- [Oracle TSAM Plus Product Overview](#)
- [Oracle TSAM Plus Installation Guide](#)
- [Oracle TSAM Plus Administration Guide](#)
- [Oracle TSAM Plus Deployment Guide](#)