HP Operations Smart Plug-in for BEA Tuxedo

For HP Operations for UNIX 9.0.

Software Version: 5.00

Installation Guide

Legal Notices

Warranty

The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

The information contained herein is subject to change without notice.

Restricted Rights Legend

Confidential computer software. Valid license from HP required for possession, use or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

Copyright Notices

Trademark Notices

Adobe® is a trademark of Adobe Systems Incorporated.

HP-UX Release 10.20 and later and HP-UX Release 11.00 and later (in both 32 and 64-bit configurations) on all HP 9000 computers are Open Group UNIX 95 branded products.

Intel486 is a U.S. trademark of Intel Corporation.

Java™ and all Java based trademarks and logos are trademarks or registered trademarks of Sun Microsystems, Inc. in the U.S. and other countries.

Microsoft® is a U.S. registered trademark of Microsoft Corporation.

Netscape and Netscape Navigator are U.S. trademarks of Netscape Communications Corporation.

OpenView® is a registered U.S. trademark of Hewlett-Packard Company.

Oracle® is a registered U.S. trademark of Oracle Corporation, Redwood City, California.

Oracle Reports, Oracle7, and Oracle7 Server are trademarks of Oracle Corporation, Redwood City, California.

OSF/Motif® and Open Software Foundation® are trademarks of Open Software Foundation in the U.S. and other countries.

Documentation Updates

This manual's title page contains the following identifying information:

- Software version number, which indicates the software version

- Document release date, which changes each time the document is updated

- Software release date, which indicates the release date of this version of the software

To check for recent updates, or to verify that you are using the most recent edition of a document, go to:

http://ovweb.external.hp.com/lpe/doc_serv/

You will also receive updated or new editions if you subscribe to the appropriate product support service. Contact your HP sales representative for details.

Support

Please visit the HP Operations support web site at:

http://www.hp.com/managementsoftware/support

This web site provides contact information and details about the products, services, and support that HP Operations offers.

HP Operations online software support provides customer self-solve capabilities. It provides a fast and efficient way to access interactive technical support tools needed to manage your business. As a valuable support customer, you can benefit by using the support site to:

• Search for knowledge documents of interest

• Submit enhancement requests online

• Download software patches

• Submit and track progress on support cases

• Manage a support contract

• Look up HP support contacts

• Review information about available services

• Enter discussions with other software customers

• Research and register for software training

Most of the support areas require that you register as an HP Passport user and log in. Many also require a support contract.

To find more information about access levels, go to:

http://www.hp.com/managementsoftware/access_level

To register for an HP Passport ID, go to:

http://www.managementsoftware.hp.com/passport-registration.html

Contents

1 Overview

The HP Operations Smart Plug-in for BEA Tuxedo (Tuxedo SPI) is a preconfigured add-on module for HP Operations (HPO) that extends the HPO management environment to include Tuxedo systems and Tuxedo applications.

➤ HP OpenView IT/Operations (ITO) and HP OpenView VantagePoint Operations (VPO) have been renamed to HP Operations (HPO) for UNIX®. The name change has not yet been fully implemented across the HPO software and documentation. As a result, you may encounter references to all three product names.

What's in This Version

Version 5.00 of the HP Operations Smart Plug-in for Tuxedo introduces the following features:

- Support for Tuxedo 8.1 (32-bit), 9.1 (32-bit), 10 (32-bit and 64-bit) on Linux.

- Support for Tuxedo 8.1 (64-bit), 9.0 (64-bit), 9.1 (64-bit), 10 (32-bit and 64-bit) on Solaris and AIX.

- Support for Tuxedo 10 on Windows and HP-UX.

- Support dropped for Tuxedo 6.5, 7.1, and 8.0.

2 Installing the HP Operations Smart Plug-in for Tuxedo

This chapter contains the following information:

- Hardware and Software Requirements
- Upgrading the Tuxedo SPI
- Installing the Tuxedo SPI

Hardware and Software Requirements

The following section lists the requirements for the HP Operations Smart Plug-in for Tuxedo (Tuxedo SPI) only. The operating system and HP Operations (HPO) should already be installed and running.

Table 1   HPO Management Server Requirements

Hardware	Operating System	HPO	Disk Space
Intel Itanium architecture (IA64)	HP-UX 11.31	9.0	40 Mb
Sun Ultra Workstations, Sun Ultra Enterprise Servers	Solaris 10	9.0	40 Mb

Table 2   HPO Managed Node Requirements

Hardware	Operating System	Disk Space	RAM
HP 9000 Technical Workstations, HP 9000 Enterprise Servers	HP-UX 11.11, 11.23, 11.31	10 MB	64 MB or more
Intel Itanium architecture (IA-64)	HP-UX 11.23, 11.31		
Sun SPARC Stations	Solaris 8, 9 and 10		
Intel Pentium (or compatible) processor	Linux 2.6		
Intel Pentium (or compatible) processor	Windows 2003 Windows 2008		
IBM PowerPC	AIX 5.3, 6.1		

Table 3   Tuxedo Software Requirements

Software	Version	Bits
Tuxedo	8.1	32 and 64-bit
	9.x	32 and 64-bit
	10	32 and 64-bit

Software Prerequisites on the Management Server

You must make sure that the following components are installed on the management server prior to the installation of Tuxedo SPI:

- HP Operations Performance SPI Integration Component (`DSI2DDF`)

- HP Operations SPI Self-Healing Services (`SPI-SHS-OVO`)

- SPI Service Discovery Framework (`SPI-SVCDISC-OVO`)

Refer to the *HP Operations Smart Plug-ins DVD Installation Guide* for additional information about the software prerequisites on the management server.

➤ You must enable and start the `TMSYSEVT` server that is packaged with Tuxedo before starting event monitoring using Tuxedo SPI.

Upgrading the Tuxedo SPI

To upgrade to the latest version of the Tuxedo SPI, uninstall the old version and install the new version.

Installing the Tuxedo SPI

Complete the following tasks to install the Tuxedo SPI:

- **Prepare the Management Server**
- **Install the Tuxedo SPI Software**
- **Assign Responsibilities and Applications**
- **Configure and Start the Tuxedo System**
- **Distribute the Tuxedo SPI instrumentation**
- **Run the Configure SPI application**
- **Add the Domain to the Tuxedo SPI Environment (Non-Clustered)**
- **Add the Domain to the Tuxedo SPI Environment (MC/ServiceGuard)**

➤ **Tuxedo SPI supports Tuxedo from Oracle BEA Systems only and does not provide support for Tuxedo from other Independent Software Vendors (ISVs).**

Task 1:   Prepare the Management Server

1 **Make sure that your system meets or exceeds the requirements described in the** Hardware and Software Requirements **section of this document.**

2 **From the management server, install the HPO agent on each machine in the Tuxedo domain that you want to manage, thus making each machine an HPO managed node.**

For information about installing the HPO agent, refer to *HP Operations for UNIX Administrator's Reference, Volume I.*

Task 2:   Install the Tuxedo SPI Software

1 **Log on to the management server as root.**

2 **Install the Tuxedo SPI from the HP Operations Smart Plug-ins DVD. Refer to the** *HP Operations Smart Plug-ins DVD Installation Guide* **for more information**.

Task 3: Assign Responsibilities and Applications

Assign user responsibilities for the message groups (Tuxedo and TuxedoSPI message groups) and application groups (TUXSPI Tools and Tuxedo c tool groups). For additional information about assigning responsibilities, refer to the online help.

Task 4: Configure and Start the Tuxedo System

1   Create the UBBCONFIG file.

    The UBBCONFIG file is an ASCII text configuration file that describes the Tuxedo domain.

2   Generate the TUXCONFIG file.

    To generate the TUXCONFIG file, run the `tmloadcf` command.

3   Start the Tuxedo system.

    a   Run `tlisten` on each machine in the Tuxedo domain

        `tlisten` can be run from the command line or, on a UNIX system, started automatically by modifying the system startup script (for example, `rc.local`). For more information about `tlisten`, refer to the *Tuxedo Reference Manual*.

Task 5: Distribute the Tuxedo SPI instrumentation

For each managed node in the Tuxedo domain deploy instrumentation.

Task 6: Run the Configure SPI application

For each managed node in the Tuxedo domain run Configure SPI tool.

Task 7:   Add the Domain to the Tuxedo SPI Environment (Non-Clustered)

On the Tuxedo domain master machine run the `Add Domain` tool. Specify the TUXDIR and `TUXCONFIG` file.

► For Windows managed nodes, use a forward slash (/) as the path separator when entering the TUXDIR and TUXCONFIG pathnames. For example, for TUXDIR, enter C:/tuxedo/tuxedo8.1. For TUXCONFIG, enter C:/tux81/tuxconfig.

The Domain ID (the name of the Tuxedo domain) is defined in the RESOURCES section of the UBBCONFIG file. Refer to the *HP Opations Smart Plug-in for Tuxedo User's Guide* for more information about the Tuxedo UBBCONFIG file.

UNIX managed node	If the domain name is not defined in the master machine's Tuxedo configuration file, then the Tuxedo SPI's `Add Domain` program prompts the user for the Domain ID because the Tuxedo SPI requires a unique domain identification. If Tuxedo itself has been setup without any domain name, then a dummy domain name can be used here instead.

Windows managed node	If the domain name is not defined in the master machine's Tuxedo configuration file, then the Tuxedo SPI's `Add Domain` program uses the LMID value for the Domain ID because the Tuxedo SPI requires a unique domain identification.

The Add Domain task adds the domain information to the Tuxedo SPI configuration file on each managed node in the domain. It also lets you know which nodes it successfully added and which nodes it did not. If the Add Domain task cannot add a managed node to the Tuxedo SPI environment, verify the following on that managed node:

• The Tuxedo system is running.

• The HPO agent is installed and running. Type **opcagt -status**

You can run the Add Domain task any number of times for a domain to discover nodes that were not discovered in previous runs.

The Tuxedo SPI recognizes Tuxedo running as a MC/ServiceGuard package on supported HP-UX platforms only (the Tuxedo SPI only supports the MC/ServiceGuard clustered environment). An MC/ServiceGuard package consists of a shared disk and a floating IP address.

Configuring Tuxedo

For Tuxedo to run as an MC/ServiceGuard package, Tuxedo must be configured to run on a non-primary LAN interface. To make Tuxedo run on a non-primary LAN interface, an environment variable, PMID, must be set and made available to Tuxedo before it is booted. The value for PMID must be the DNS name of the floating IP address for the package.

The Tuxedo SPI will discover a Tuxedo domain booted on a non-primary LAN interface. For the Tuxedo SPI to recognize Tuxedo as an MC/ServiceGuard package, the PMID environment variable must be set in the .profile file of the Tuxedo user on all nodes to which the package can fail over.

For example, a Tuxedo application configured as an MC/ServiceGuard package could have the directory of `/tuxedo1` and an IP address of 103.33.44.55 (bound to a non-primary LAN interface, say lan0:1) with a DNS entry of tuxmaster.companyname.com. For Tuxedo to boot up on this IP address, the PMID environmental variable must be set to tuxmaster.

The Tuxedo SPI will read the PMID environment variable set in the .profile of the Tuxedo user to attach to the running Tuxedo System. The environment variable must also be set in the startup scripts of MC/ServiceGuard.

For the Tuxedo SPI to work correctly, the following conditions must be met:

• A functioning OVO management server is set up.

• MC/ServiceGuard is configured on the supported managed nodes.

• The configured Tuxedo packages fail over and fail back to the managed nodes without any errors.

The Tuxedo SPI has been tested to work with MC/ServiceGuard 11.09. The SPI will also work with other MC/ServiceGuard versions, provided that the configuration of MC/ServiceGuard with Tuxedo and the SPI package was accomplished without any errors.

Configuring the Tuxedo SPI with MC/ServiceGuard

1 Distribute the Tuxedo SPI templates, monitors and commands software to all the managed nodes of the cluster. Make sure there are no errors. For information on how to distribute Tuxedo-SPI software see task 5.

2 Before adding a domain into Tuxedo-SPI, on the primary node (which will be the Tuxedo master machine) execute:

```
cp -R /opt/OV/subagent/BEASPI/etc
/<Mount_Point_Of_SharedDisk>/
```

The /opt/OV/subagent/BEASPI/etc folder is copied into the shared disk.

3 On the all cluster nodes:

a Remove the directory /opt/OV/subagent/BEASPI/etc using the command:

```
rm -r /opt/OV/subagent/BEASPI/etc
```

b Create a symbolic link of /opt/OV/subagent/BEASPI/etc pointing to the "etc" folder, copied on to the shared disk, with the command:

```
ln -fis /<Mount_Point_Of_SharedDisk>/etc
/opt/OV/subagent/BEASPI/
```

4 Verify execution of the above commands.

➤ The "etc" directory can be shared across all the nodes in the cluster environment that could execute the Tuxedo package. Thus, the BEASPI monitoring process running on each node could refer to the domain information from this shared file. Sharing this file prevents the operation of "adding tuxedo domain" on each alternative node whenever a failover happens.

Script Code 1 You must fill in the function *customer_defined_run_cmds* of the control script with the following script code:

```
# THE SCRIPT CODE HERE IS JUST A TYPICAL EXAMPLE
# TO INDICATE AS TO WHAT NEEDS TO BE DONE WHEN
# TUXEDO PACKAGE FAILSOVER TO A NODE AND MIGHT
# HAVE TO BE TAILORED TO FIT THE EXACT NEED
##
```

```
# CODE TO BOOT A TUXEDO DOMAIN
#
# IMPORTANT NOTE: THIS PART OF THE CODE BELOW HAS
# BEEN COMMENTED. WHETHER THIS CODE
# HAS TO BE UNCOMMENTED SHOULD BE DECIDED
# BY TUXEDO ADMINISTRATOR OR THE SYSTEM
# ADMINISTRATOR. BECAUSE, TUXEDO SYSTEMS
# RUNNING IN A CLUSTERED ENVIRONMENT MAY
# HAVE CUSTOM SCRIPTS TO DO THIS.
##

# TUXDIR=<PATH FOR TUXEDO INSTALL DIRECTORY - NEEDS TO BE ENTERED HERE>
# . ./$TUXDIR/tux.env
# TUXCONFIG=<PATH TO THE TUXCONFIG FILE>
# export TUXCONFIG
# tmboot -y


##
# SETTINGS FOR ENABLING ALL THE TUXEDO-SPI TEMPLATES,
# MONITORS AND SCHEDULERS.
#
# IMPORTANT NOTE: THE OVO AGENT PROCESSES
# MUST HAVE BEEN ALREADY STARTED BEFORE ENABLING THE
# TEMPLATES.
#
/opt/OV/bin/OpC/opctemplate -e "TUXEVT"
/opt/OV/bin/OpC/opctemplate -e "TUXMON-15M"
/opt/OV/bin/OpC/opctemplate -e "TUXMON-1H"
/opt/OV/bin/OpC/opctemplate -e "TUXMON-5M"
/opt/OV/bin/OpC/opctemplate -e "T_CLIENT-PCT_TRANABT"
/opt/OV/bin/OpC/opctemplate -e "T_CLIENT-NUMCONV_MIN"
/opt/OV/bin/OpC/opctemplate -e "T_CLIENT-NUMCONV"
/opt/OV/bin/OpC/opctemplate -e "T_CLIENT-ENCRYPTBITS"
/opt/OV/bin/OpC/opctemplate -e "T_CLIENT-NUMREQ"
/opt/OV/bin/OpC/opctemplate -e "T_CLIENT-IDLETIME"
/opt/OV/bin/OpC/opctemplate -e "T_CLIENT-NUMENQUEUE_MIN"
/opt/OV/bin/OpC/opctemplate -e "T_CLIENT-NUMDEQUEUE_MIN"
/opt/OV/bin/OpC/opctemplate -e "T_CLIENT-NUMPOST_MIN"
/opt/OV/bin/OpC/opctemplate -e "T_CLIENT-NUMREQ_MIN"
/opt/OV/bin/OpC/opctemplate -e "T_CLIENT-NUMSUBSCRIBE_MIN"
/opt/OV/bin/OpC/opctemplate -e "T_CLIENT-NUMTRAN_MIN"
```

```
/opt/OV/bin/OpC/opctemplate -e "T_CLIENT-NUMUNSOL"
/opt/OV/bin/OpC/opctemplate -e "T_CLIENT-STATE"
/opt/OV/bin/OpC/opctemplate -e "T_MACHINE-PCT_ACCESSERS"
/opt/OV/bin/OpC/opctemplate -e "T_MACHINE-PCT_CLIENTS"
/opt/OV/bin/OpC/opctemplate -e "T_MACHINE-PCT_CONV"
/opt/OV/bin/OpC/opctemplate -e "T_MACHINE-PCT_GTT"
/opt/OV/bin/OpC/opctemplate -e "T_MACHINE-PCT_WSCLIENTS"
/opt/OV/bin/OpC/opctemplate -e "T_MACHINE-STATE"
/opt/OV/bin/OpC/opctemplate -e "T_MSG-MSG_QNUM"
/opt/OV/bin/OpC/opctemplate -e "T_MSG-MSG_RTIME"
/opt/OV/bin/OpC/opctemplate -e "T_MSG-MSG_STIME"
/opt/OV/bin/OpC/opctemplate -e "T_MSG-PCT_MSG_CBYTE"
/opt/OV/bin/OpC/opctemplate -e "T_SERVER-NUMREQ"
/opt/OV/bin/OpC/opctemplate -e "T_SERVER-NUMCONV"
/opt/OV/bin/OpC/opctemplate -e "T_SERVER-PCT_GEN"
/opt/OV/bin/OpC/opctemplate -e "T_SERVER-NUMCONV_MIN"
/opt/OV/bin/OpC/opctemplate -e "T_SERVER-NUMDEQUEUE_MIN"
/opt/OV/bin/OpC/opctemplate -e "T_SERVER-NUMENQUEUE_MIN"
/opt/OV/bin/OpC/opctemplate -e "T_SERVER-NUMPOST_MIN"
/opt/OV/bin/OpC/opctemplate -e "T_SERVER-NUMREQC_MIN"
/opt/OV/bin/OpC/opctemplate -e "T_SERVER-NUMREQ_MIN"
/opt/OV/bin/OpC/opctemplate -e "T_SERVER-NUMTRAN_MIN"
/opt/OV/bin/OpC/opctemplate -e "T_SERVER-PCT_TRANABT"
/opt/OV/bin/OpC/opctemplate -e "T_CLASS-UNKNOWN"
/opt/OV/bin/OpC/opctemplate -e "COMPRESSULOG"
/opt/OV/bin/OpC/opctemplate -e "DELETEULOG
/opt/OV/bin/OpC/opctemplate -e "TUXSPI_CHKEVTMON
/opt/OV/bin/OpC/opctemplate -e "TUXSPI_CHKULOGMON
/opt/OV/bin/OpC/opctemplate -e "TUXSPI_ClientDataLog
/opt/OV/bin/OpC/opctemplate -e "TUXSPI_MachineDataLog
/opt/OV/bin/OpC/opctemplate -e "TUXSPI_MessageDataLog
/opt/OV/bin/OpC/opctemplate -e "TUXSPI_ServerDataLog"
```

Script Code 2 You must fill in the function *customer_defined_halt_cmds* of the control script with the following script code:

```
# THE SCRIPT CODE HERE IS JUST A TYPICAL EXAMPLE
# TO INDICATE AS TO WHAT NEEDS TO BE DONE WHEN
# TUXEDO PACKAGE FAILSOVER TO A NODE AND MIGHT
# HAVE TO BE TAILORED TO FIT THE EXACT NEED
```

```
##
# CODE TO SHUTDOWN A TUXEDO DOMAIN
#
# IMPORTANT NOTE: THIS PART OF THE CODE BELOW HAS
# BEEN COMMENTED. WHETHER THIS CODE
# HAS TO BE UNCOMMENTED SHOULD BE DECIDED
# BY TUXEDO ADMINISTRATOR OR THE SYSTEM
# ADMINISTRATOR. BECAUSE, TUXEDO SYSTEMS
# RUNNING IN A CLUSTERED ENVIRONMENT MAY
# HAVE CUSTOM SCRIPTS TO DO THIS.
##

# TUXDIR=<PATH FOR TUXEDO INSTALL DIRECTORY - NEEDS TO BE ENTERED HERE>
# . ./$TUXDIR/tux.env
# TUXCONFIG=<PATH TO THE TUXCONFIG FILE>
# export TUXCONFIG
# tmshutdown –y -c


##
# SETTINGS FOR ENABLING ALL THE TUXEDO-SPI TEMPLATES,
# MONITORS AND SCHEDULERS.
#
# IMPORTANT NOTE: THE TEMPLATES SHOULD BE DISABLED
# AT THE TIME OF FAIL OVER. IF THEY ARE NOT, THE
# OVO MESSAGE BROWSER WOULD BE FLOODED WITH
# TUXEDO SPI TEMPLATE ERROR MESSAGES AT REGULAR INTERVALS.
# IN ORDER TO PREVENT THE MESSAGE BROWSER FROM GETTING
# USELESS ERROR MESSAGES, THE TEMPLATES CAN BE DISABLED.
##

/opt/OV/bin/OpC/opctemplate -d "TUXEVT"
/opt/OV/bin/OpC/opctemplate -d "TUXMON-15M"
/opt/OV/bin/OpC/opctemplate -d "TUXMON-1H"
/opt/OV/bin/OpC/opctemplate -d "TUXMON-5M"
/opt/OV/bin/OpC/opctemplate -d "T_CLIENT-PCT_TRANABT"
/opt/OV/bin/OpC/opctemplate -d "T_CLIENT-NUMCONV_MIN"
/opt/OV/bin/OpC/opctemplate -d "T_CLIENT-NUMCONV"
/opt/OV/bin/OpC/opctemplate -d "T_CLIENT-ENCRYPTBITS"
/opt/OV/bin/OpC/opctemplate -d "T_CLIENT-NUMREQ"
/opt/OV/bin/OpC/opctemplate -d "T_CLIENT-IDLETIME"
/opt/OV/bin/OpC/opctemplate -d "T_CLIENT-NUMENQUEUE_MIN"
/opt/OV/bin/OpC/opctemplate -d "T_CLIENT-NUMDEQUEUE_MIN"
```

```
/opt/OV/bin/OpC/opctemplate -d "T_CLIENT-NUMPOST_MIN"
/opt/OV/bin/OpC/opctemplate -d "T_CLIENT-NUMREQ_MIN"
/opt/OV/bin/OpC/opctemplate -d "T_CLIENT-NUMSUBSCRIBE_MIN"
/opt/OV/bin/OpC/opctemplate -d "T_CLIENT-NUMTRAN_MIN"
/opt/OV/bin/OpC/opctemplate -d "T_CLIENT-NUMUNSOL"
/opt/OV/bin/OpC/opctemplate -d "T_CLIENT-STATE"
/opt/OV/bin/OpC/opctemplate -d "T_MACHINE-PCT_ACCESSERS"
/opt/OV/bin/OpC/opctemplate -d "T_MACHINE-PCT_CLIENTS"
/opt/OV/bin/OpC/opctemplate -d "T_MACHINE-PCT_CONV"
/opt/OV/bin/OpC/opctemplate -d "T_MACHINE-PCT_GTT"
/opt/OV/bin/OpC/opctemplate -d "T_MACHINE-PCT_WSCLIENTS"
/opt/OV/bin/OpC/opctemplate -d "T_MACHINE-STATE"
/opt/OV/bin/OpC/opctemplate -d "T_MSG-MSG_QNUM"
/opt/OV/bin/OpC/opctemplate -d "T_MSG-MSG_RTIME"
/opt/OV/bin/OpC/opctemplate -d "T_MSG-MSG_STIME"
/opt/OV/bin/OpC/opctemplate -d "T_MSG-PCT_MSG_CBYTE"
/opt/OV/bin/OpC/opctemplate -d "T_SERVER-NUMREQ"
/opt/OV/bin/OpC/opctemplate -d "T_SERVER-NUMCONV"
/opt/OV/bin/OpC/opctemplate -d "T_SERVER-PCT_GEN"
/opt/OV/bin/OpC/opctemplate -d "T_SERVER-NUMCONV_MIN"
/opt/OV/bin/OpC/opctemplate -d "T_SERVER-NUMDEQUEUE_MIN"
/opt/OV/bin/OpC/opctemplate -d "T_SERVER-NUMENQUEUE_MIN"
/opt/OV/bin/OpC/opctemplate -d "T_SERVER-NUMPOST_MIN"
/opt/OV/bin/OpC/opctemplate -d "T_SERVER-NUMREQC_MIN"
/opt/OV/bin/OpC/opctemplate -d "T_SERVER-NUMREQ_MIN"
/opt/OV/bin/OpC/opctemplate -d "T_SERVER-NUMTRAN_MIN"
/opt/OV/bin/OpC/opctemplate -d "T_SERVER-PCT_TRANABT"
/opt/OV/bin/OpC/opctemplate -d "T_CLASS-UNKNOWN"
/opt/OV/bin/OpC/opctemplate -d "COMPRESSULOG"
/opt/OV/bin/OpC/opctemplate -d "DELETEULOG
/opt/OV/bin/OpC/opctemplate -d "TUXSPI_CHKEVTMON
/opt/OV/bin/OpC/opctemplate -d "TUXSPI_CHKULOGMON
/opt/OV/bin/OpC/opctemplate -d "TUXSPI_ClientDataLog
/opt/OV/bin/OpC/opctemplate -d "TUXSPI_MachineDataLog
/opt/OV/bin/OpC/opctemplate -d "TUXSPI_MessageDataLog
/opt/OV/bin/OpC/opctemplate -d "TUXSPI_ServerDataLog"

"
```

3 Uninstalling the HP OpenView Smart Plug-in for BEA Tuxedo

Complete the following tasks to uninstall the HP OpenView Smart Plug-in for BEA Tuxedo (Tuxedo SPI):

- Remove the Tuxedo SPI from the Managed Nodes
- Remove the Tuxedo SPI from the Management Server

Task 1:   Remove the Tuxedo SPI from the Managed Nodes

For each managed node in the Tuxedo domain you must remove the templates and deinstall the Tuxedo SPI. Do the following:

1 Remove the Tuxedo SPI templates from the managed node.

2 Run the tool Ulog Mon: Del Nodes to stop the ULOG monitoring process (beaUlog2ito) on all configured Tuxedo domains.

3 Run the tool Event Mon Stop to stop event monitoring process (beaEvt2ito) on all configured Tuxedo domain.

4 Run the tool Remove Tuxedo SPI on the managed node.

Task 2:   Remove the Tuxedo SPI from the Management Server

1 Log on to the management server as root.

2 swremove/pkgrm the Tuxedo SPI software.

HP-UX	On an HP-UX system, use the command line:
	a Type the following: **`/usr/sbin/swremove SPI-Tuxedo`**
	b Check the `/var/adm/sw/swagent.log` log file and correct any errors that appear.

Solaris	On a Solaris system, use the command line: `/usr/sbin/pkgrm SPI-Tuxedo`

3   Delete the Tuxedo SPI policies and policies groups from the management server.

4   Delete the Tuxedo SPI tool group and all subgroup and tools from the management server.

5   Delete the Tuxedo SPI message group from the management server.

6   Delete the Tuxedo SPI instruction text interface from the management server.