

# HP OpenView Smart Plug-in for BEA Tuxedo

For HP Openview Operations for UNIX (OVO) 7.x and 8.x

Software Version: 3.20

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## Installation Guide

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# 1 Overview

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

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

## What's in This Version

Version 3.20 of the HP OpenView Smart Plug-in for BEA Tuxedo introduces the following features:

- Support for monitoring Tuxedo Application Queue, which includes monitoring Tuxedo Application Queue space and Application queues.
- Support for monitoring Tuxedo Server Group status.
- Support for data collection for Tuxedo Application queue classes named Application Queue Space (T\_APPQSPACE), Application Queue (T\_APPQ), and Application Queue Transactions (T\_APPQTRANS). Data collection can be configured for either OVPA or CODA.
- Support for data collection for the Tuxedo Server Group class named T\_GROUP.
- Support for Tuxedo 9.1 on Windows 2003, Solaris 9 and 10, and HP-UX 11.23 PA-RISC 64.
- Support for Tuxedo 9 on Windows 2003, Solaris 9 and 10, and HP-UX 11.23 PA-RISC 64.
- Support for BEA Tuxedo 6.5 on IBM AIX 5.1 and 5.2.

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## 2 Installing the HP OpenView Smart Plug-in for BEA Tuxedo

This chapter contains the following information:

- Hardware and Software Requirements
- Installing HP-UX Patches
- Upgrading the Tuxedo SPI
- Installing the Tuxedo SPI

## Hardware and Software Requirements

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

**Table 1 OVO Management Server Requirements**

<b>Hardware</b>	<b>Operating System</b>	<b>Patches</b>	<b>OVO</b>	<b>Disk Space</b>	<b>RAM</b>
HP 9000 Technical Workstations, HP 9000 Enterprise Servers	11.11, 11.23 (PA-RISC)	PHSS_21616	7.1, 8.0, 8.10, 8.20	40 MB	128 MB or more
Intel Itanium architecture (IA64)	HP-UX 11.23 (64 bit)				
Sun Ultra Workstations, Sun Ultra Enterprise Servers	Solaris 7, Solaris 8, 9, and 10		8.1		

**Table 2 OVO Managed Node Requirements**

Hardware	Operating System	Patches	OVO	Disk Space	RAM
HP 9000 Technical Workstations, HP 9000 Enterprise Servers	HP-UX 11.i (64 bit) <sup>a</sup> HP-UX 11.23 PA (64 bit)	PHSS_21614 and PHSS_21616 <sup>b</sup>	7.1, 8.0, 8.10, 8.20	10 MB	64 MB or more
Intel Itanium architecture (IA-64)	HP-UX 11.23		8.0, 8.10, 8.20		
Sun SPARC Stations	Solaris 7, Solaris 8, Solaris 9, Solaris 10		7.1, 8.0, 8.10 (8.0 and 8.10 on Solaris 7 and later), 8.20		
DEC Alpha	Tru64 UNIX 5.1A		7.1, 8.0, 8.10 (only DCE agent), 8.20		
Intel Pentium (or compatible) processor	Windows 2000 with SP3 Windows 2003		7.1, 8.0, 8.10, 8.20		
IBM PowerPC	AIX 5.1 and 5.2 (only DCE agent)		7.1, 8.0, 8.10, 8.20		

a. Although it is planned to use HP-UX 11i to describe a whole family of HP-UX 11.x releases, today HP-UX 11i is commonly used as a synonym for HP-UX 11.11.

b. See [Installing HP-UX Patches](#) on page 15 for more information.

**Table 3 BEA Tuxedo Software Requirements**

Software	Version	Rolling Patch
BEA Tuxedo	6.5	223 or higher
	7.1	043 or higher
	8.0	
	8.1	
	9.0	
	9.1	

## 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 OpenView Performance SPI Integration Component (DSI2DDF)
- HP OpenView SPI Self-Healing Services (SPI-SHS-OVO)
- SPI Service Discovery Framework (SPI-SVCDISC-OVO)

Refer to the *HP OpenView Smart Plug-ins CD 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 BEA Tuxedo before starting event monitoring using Tuxedo SPI.

## Installing HP-UX Patches

To determine all patches applied to your HP-UX system, type  
**swlist -l file | grep PH**

Install the patches listed in [Table 4](#).

Patches can be obtained from the HP IT Resource Center web page at the URL  
**<http://itrc.hp.com/>**.

If these or succeeding patches are not available, contact your HP support representative for the latest versions.

**Table 4 HP-UX Patches**

<b>Patch Number</b>	<b>Automatic Reboot?</b>	<b>Patch Description and Installation Requirements</b>
PHSS_21614	no	HP DCE/9000 1.7 Runtime cumulative patch. Required on managed nodes running both HP-UX 11.0 (32 and 64 bit) <i>and</i> BEA Tuxedo.
PHSS_21616	no	HP DCE/9000 1.7 Server/DevTools cumulative patch. Required on all HP-UX management servers. Required on managed nodes running both HP-UX 11.0 (32 and 64 bit) <i>and</i> BEA Tuxedo.

To download patches, do the following:

- 1 Go to the HP IT Resource Center web page at the URL **<http://itrc.hp.com/>**
- 2 In the Maintenance and Support section, click on **Individual Patches**.
- 3 You must be a registered user to access this section. However, you do not need a support contract to download individual patches.

If you are a registered user, log in to the site. If you are not a registered user, register now.

- 4 From the Patch Database Main web page, enter the patch number (in the box that appears after the text “retrieve a single patch by entering the patch name”) and hit **Enter**.

- 5 A list of patches is returned (you may need to scroll down the Search for Patches web page to view the list).

If the patch you selected has been superseded, you will see a different patch displayed under the `most recent` table heading.

To find out more information about the patch, click on the patch name.

To add the most recent patch to your selected patch list, select the check box next to patch and click on **ADD TO SELECTED PATCH LIST**.

- 6 The patch you selected and any patches required by it are displayed in the Selected Patch List web page. Select **Download** to download the patch(es).

Repeat steps 4-6 for each patch to install.

To apply multiple patches while rebooting your system only once, do the following:

- 1 Copy or ftp each individual patch depot into `/tmp`.
- 2 Create a directory in `/tmp` to hold all the patches. For example, **mkdir /tmp/DEPOT**
- 3 For each patch (for example, PHSS\_21616), type the following:

```
swcopy -s /tmp/PHSS_21616.depot \* @ /tmp/DEPOT
```

- 4 After swcopying each patch to `/tmp/DEPOT`, install all the patches (this will reboot your system) by typing the following:

```
swinstall -x match_target=true -x autoreboot=true -s /tmp/DEPOT
```



## Upgrading the Tuxedo SPI

To upgrade to the latest version of the Tuxedo SPI, uninstall the old version and install the new version. When swinstalling the new version, be sure to use the “-x reinstall=true” option.

# 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 Software
- 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 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 OVO agent on each machine in the Tuxedo domain that you want to manage, thus making each machine an OVO managed node.

If a managed node in your Tuxedo domain is running Windows 2000, also install the OVO agent on the management server.

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

- 3 If the OVO GUI is running, exit from it.

## Task 2: Install the Tuxedo SPI Software

- 1 Log on to the management server as root.

- 2 Mount the HP OpenView Smart Plug-ins CD-ROM. Use the CD that contains the HP OpenView Smart Plug-ins for OVO/UNIX. Refer to the *HP OpenView Smart Plug-ins for OVO/UNIX Release Notes* for more information.

<p><b>HP-UX</b></p>	<p>On an HP-UX system, use the <code>swinstall</code> graphical user interface:</p> <p>Type the following: <code>/usr/sbin/swinstall -s /&lt;mount_point&gt;/OV_DEPOT/11.0HPUX.sdtape [-x reinstall=true]</code></p> <p>If you are upgrading the software, remove the old version before <code>swinstalling</code> the new version. And, when <code>swinstalling</code> the new version, use the “-x reinstall-true” option.</p> <p>The SD Install - Software Selection window appears. Highlight <code>BEASPI.TUXSPIHP11</code>.          Select Actions: Mark for Install from the menu bar.          Select Actions: Install (Analysis) from the menu bar.          Verify that the analysis phase of the installation completes without errors by clicking on <b>Logfile</b>. This displays the <code>/var/adm/sw/swagent.log</code> log file. Correct any errors that appear.          Click on <b>OK</b> to continue with the installation.          Exit <code>swinstall</code> after the installation completes.          Or on an HP-UX system, use the command line:          Type the following: <code>/usr/sbin/swinstall -s /&lt;mount_point&gt;/OV_DEPOT/11.0HPUX.sdtape [-x reinstall=true] BEASPI.TUXSPIHP11</code>          Check the <code>/var/adm/sw/swagent.log</code> log file and correct any errors that appear.</p>
<p><b>HP-UX MC/SG Cluster</b></p>	<p>On an HP-UX system, install the Tuxedo SPI on both nodes of the MC/Service Guard cluster and perform all the post-installation tasks as detailed in the following sections.</p> <p>Do not distribute or configure Tuxedo SPI on any managed node before installing Tuxedo SPI on both nodes of the OVO MC/Service Guard cluster.</p>

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<b>Solaris</b>	<p>On a Solaris system, use the command line:</p> <pre>Type the following: /usr/sbin/swinstall -s /&lt;mount_point&gt;/OV_DEPOT/SOLARIS.sdtape [-x reinstall=true] BEASPI.TUXSPISOL</pre> <p>If you are upgrading the software, remove the old version before swinstalling the new version. And, when swinstalling the new version, use the “-x reinstall-true” option.</p> <p>The swinstall application is installed with OVO (swinstall is also referred to as SD or Software Distributor).</p> <p>Check the /var/adm/sw/swagent.log log file and correct any errors that appear.</p>
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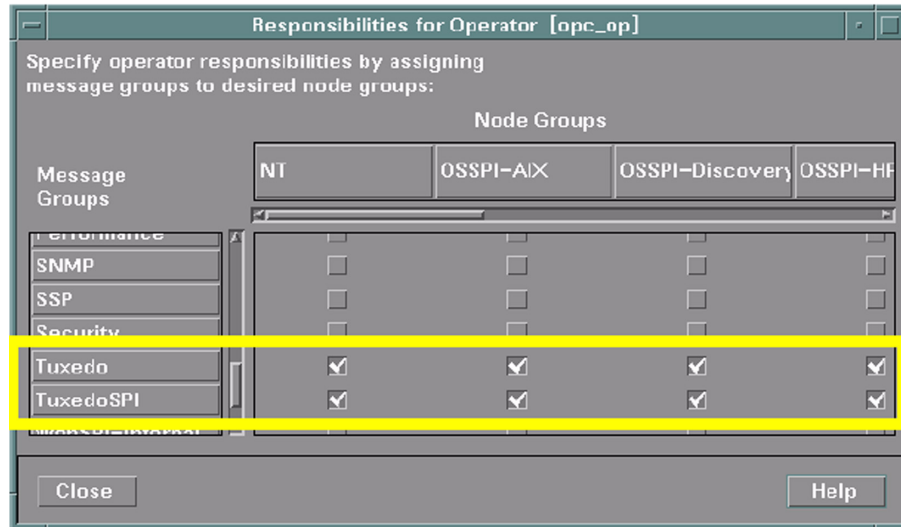
---

### Task 3: Assign Responsibilities and Applications

Assign user responsibilities for the message groups (Tuxedo and TuxedoSPI message groups) and application groups (BEA SPI Tools and BEA Tuxedo platform-specific application groups). For additional information about assigning responsibilities, refer to the online help.

- 1 Start the OVO GUI (type **opc**) and log in as the OVO administrator (opc\_adm).
- 2 Open the User Bank and Application Bank windows. Select **Window: User Bank** and then **Window: Application Bank** from the menu bar.
- 3 From the User Bank window, right-click on a user icon (for example, opc\_op) and select **Modify**.
- 4 From the Modify User window, find the Configuration area and click on **Responsibilities**.

- From the Responsibilities for Operator window, scroll down the Message Group list to display Tuxedo and TuxedoSPI. Select the checkboxes of the corresponding node groups that you want to assign to the user. Refer to the online help for more information.



- From the Modify User window, find the Configuration area and click on **Applications**.
- From the Application Bank window, drag and drop the BEA SPI Tools and BEA Tuxedo platform-specific icons onto the Applications of User window. Refer to the online help from the Applications of User window for more information.
- From the Modify User window, click on **OK**.

#### Task 4: Configure and Start the Tuxedo System

- Create the UBBCONFIG file.

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

- Generate the TUXCONFIG file.

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

- 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 *BEA Tuxedo Reference Manual*.

#### Task 5: Distribute the Tuxedo SPI Software

For each managed node in the Tuxedo domain, do the following:

- 1 From the OVO GUI, open the Node Bank window.
- 2 Highlight (single-click on) a managed node.
- 3 Select **Actions: Agents -> Assign Templates** from the menu bar.

If the template group `SPI for Tuxedo` displays in the Define Configuration window, go to step 9.

Otherwise, click on **Add**.

- 4 From the Add Configuration window, click on **Open Template Window**.
- 5 From the Message Source Templates window, highlight the `SPI for Tuxedo` template group.
- 6 Go back to the Add Configuration window and click on **Get Template Selections**.
- 7 From the Add Configuration window, click on **OK**.
- 8 Close the Message Source Templates window.
- 9 Go back to the Define Configuration and click on **OK**.
- 10 Go back to the Node Bank window and select **Actions: Agents -> Install/Update SW & Config** from the menu bar.

- 11 From the Install/Update VPO Software and Configuration window, select the following:

#### Components

- ✓ Agent Software (do not select this option if the managed node is running on Windows 2000. Instead, install the agent software manually. Refer to the OVO Installation Guide for more information)
- ✓ Templates
- ✓ Actions
- ✓ Monitors
- ✓ Commands

#### Target Nodes

- ✓ Nodes in list requiring update

#### Options

- ✓ Force Update

- 12 Click on **OK**.



Distribute the template TUXULOG\_True64 only to Tru64 UNIX nodes. On other nodes, use the ULOG template TUXLOG.

Customize the template TUXULOG\_True64 before distributing it to the nodes. Modify the template to enter the path of all ULOG files (ULOGPFX) separated by space. For example, <'bealogmon.sh PATH\_TO\_ULOG\_FOR\_DOMAINS\_TO\_BE\_MONITORED\_SEPARATED\_BY\_ONE\_SPACE\_EACH'> must be replaced with <'bealogmon.sh /home/tuxedo/apps/logs/ULOG /disk4/apps/banking/logs/ULOG'>.

With this change, Tuxedo SPI will monitor the ULOG files for the current day under the directories /home/tuxedo/apps/logs and /disk4/apps/banking/logs.

#### Task 6: Run the Configure SPI application

For each managed node in the Tuxedo domain, do the following:

- 1 From the OVO GUI, open the Node Bank window.
- 2 Highlight (single-click on) a managed node.
- 3 Open the Application Bank window.

- 4 Double-click the required BEA SPI Tools platform-specific application group (the platform corresponds to the operating system on which the managed node is running).
- 5 Double-click the Configure SPI icon.

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

On the Tuxedo domain master machine, do the following:

- 1 From the OVO GUI, open the Node Bank window or appropriate Node Group window.
- 2 Highlight the Tuxedo domain master machine.
- 3 Open the Application Bank window.
- 4 Double-Click on the appropriate BEA Tuxedo platform-specific application group (the platform corresponds to the operating system on which the Tuxedo domain master machine is running).
- 5 Double-Click on the Add Domain icon.
- 6 When prompted, specify the TUXDIR pathname for the TUXCONFIG file. If the domain name is not defined in the master machine's Tuxedo configuration file, the Add Domain task also prompts you for the domain name (DomainID).



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/tuxedo8.0. For TUXCONFIG, enter C:/tux80/tuxconfig.

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

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

#### Task 8: Add the Domain to the Tuxedo SPI Environment (MC/ServiceGuard)

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
# tmsshutdown -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_RUNTIME"
/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
- 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:
  - a Start the OVO GUI (type **opc**) and log in as the OVO administrator (**opc\_adm**).
  - b Open the Node Bank window or appropriate Node Group window.
  - c Highlight (single-click on) a managed node.
  - d Select **Actions: Agents -> Assign Templates** from the menubar.
  - e From the Define Configuration window, highlight the SPI for Tuxedo template group and click on **Remove selected**.
  - f From the Node Bank window or appropriate Node Group window, select **Actions: Agents -> Install/Update SW & Config** from the menubar.
  - g From the Install/Update VPO Software and Configuration window, select the following:
    - Components
      - ✓ Templates
    - Target Nodes
      - ✓ Nodes in list requiring update
  - h Click on **OK**.

- 2 Deinstall the Tuxedo SPI from the managed node:
  - a From the Node Bank window or appropriate Node Group window verify that the same managed node highlighted in step 1is still highlighted.
  - b Open the Application Bank window.
  - c Double-Click on the appropriate BEA SPI Tools platform-specific application group (the platform corresponds to the operating system on which the managed node is running).
  - d Double-Click on the Deinstall SPI icon.

**Task 9: Remove the Tuxedo SPI from the Management Server**

- 1 Log on to the management server as root.
- 2 swremove the Tuxedo SPI software.

<b>HP-UX</b>	<p>On an HP-UX system, use the command line:</p> <ol style="list-style-type: none"> <li>a Type the following: <code>/usr/sbin/swremove BEASPI.TUXSPIHP11</code></li> <li>b Check the <code>/var/adm/sw/swagent.log</code> log file and correct any errors that appear.</li> </ol>
<b>Solaris</b>	<p>On a Solaris system, use the command line:</p> <ol style="list-style-type: none"> <li>a Type the following: <code>/usr/sbin/swremove BEASPI.TUXSPISOL</code></li> </ol> <p>The <code>swremove</code> application is installed with OVO.</p> <ol style="list-style-type: none"> <li>b Check the <code>/var/adm/sw/swagent.log</code> log file and correct any errors that appear.</li> </ol>

- 3 Delete the Tuxedo SPI templates and template groups from the management server:
  - a From the OVO GUI, open the Message Source Templates window.
  - b Double-Click on the SPI for Tuxedo template group.
  - c Highlight the TUXEDO template group.
  - d Highlight all the templates listed in the right window.

- e Click on **Delete from All** to delete the templates.
  - f Click on **Yes** at the Do you really want to delete the template(s) ? prompt.
  - g Highlight the TUXEDO template group again.
  - h Click on **Delete from All** to delete it.
  - i Click on **Yes** at the Do you really want to delete the template(s) ? prompt.
  - j Highlight the SPI for Tuxedo template group.
  - k Click on **Delete from All** to delete it.
  - l Click on **Yes** at the Do you really want to delete the template(s) ? prompt.
- 4 Delete the Tuxedo SPI application group icons from the management server:
- a Open the Application Bank window.
  - b For each Tuxedo SPI icon (BEA SPI Tools UNIX, BEA SPI Tools Windows, BEA Tuxedo UNIX, and BEA Tuxedo Windows) in the application bank, right-click on it and select **Delete**.
- 5 Delete the Tuxedo SPI message group icons from the management server:
- a Open the Message Group Bank window.
  - b For each Tuxedo SPI icon (Tuxedo and TuxedoSPI) in the message group bank, right-click on it and select **Delete**.
- 6 Delete the Tuxedo SPI instruction text interface from the management server:
- a Open the Node Bank window.
  - b Select **Actions: Utilities -> Instruction Interfaces** from the menubar.
  - c Highlight TUXEDOInstrInt.
  - d Click on **Delete**.

