HP Service Oriented Architecture Policy Enforcer

Installation Guide

Version: 3.10

Windows®, HP-UX, Linux, Solaris

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Installation

The HP Service Oriented Architecture Policy Enforcer (SOA PE) installation installs both SOA PE and the SOA PE Broker.

See the *HP SOA Policy Enforcer Release Notes* for the hardware and software requirements before installing HP SOA PE.

Supported Specifications

SOA PE supports the following standards and specifications:

- HTTP 1.1
- Web Services Definition Language (WSDL) 1.1
- Simple Object Access Protocol (SOAP) 1.1
- Web Services Interoperability (WS-I) Basic Profile 1.1
- WS-I Attachments Profile 1.0
- Web Services Security (WS-Security) 1.0
- WS-UsernameToken Profile 1.0
- WS-X.509 Certificate Token Profile
- Universal Description, Discovery and Integration (UDDI) V3 Governance Integration Framework (GIF)
- XML 1.0, 1.1
- XSLT 1.0
- XSD: XML Schema 1.0
- XML Schema 1.0
- WS-Addressing 1.0
- WS-Reliable Messaging 1.1
- WS-Security Security Assertion Markup Language (SAML) token profile 1.1
- WS-Policy 1.0
- WS-PolicyAttachment 1.2
- SSL 3.0
- JMS 1.0.2
- SMTP supported only for sending email
- XACML 1.1

- SNMP v1
- LDAP v3 (SunOne and Microsoft Active Directory)

Hostname

The hostname for the SOA PE system must resolve to only one DNS qualified name. The same is true for the broker.

Environment Variable Settings

The installation creates a system environment variable called MIP_JAVA_HOME. After the installation is complete, verify that the environment variable was created and that it is set to the JDK directory. In addition, the installation asks you for the JDK that you want to use. See the "System Requirements" section above for Java requirements.

SOA PE and SOA PE Broker will not start if the MIP_JAVA_HOME environment variable is not set.

Installing SOA PE

The instructions in this section install both the SOA PE and SOA PE Broker. Instructions are provided for Windows, HP-UX, Linux, and Solaris systems.

SOA PE Broker and SOA PE infrastructure are licensed. During the installation, an evaluation license is installed, and these components may be evaluated for 60 days. Thereafter, a license must be purchased. Unlicensed components will fail to start and a license expiration message is written to the log file. For information on licensing, see the "Entering an SOA PE License" section below after completing the installation instructions in this section.

Side-by-Side Installation

Different versions of SOA PE can be installed on a single system. The installer includes a version number as part of the installation directory name in order to differentiate between the different versions. However, you cannot currently run different versions of SOA PE at the same time on a single system. You can only run one version at a time.

This feature allows you to maintain previous versions of SOA PE while testing or implementing newer versions.

Windows Installation

To install SOA PE on the Windows platform:

1. Log on to the system as an `admin` user.
2. Place the SOA PE DVD in the DVD drive. The DVD automatically starts and the start page displays. If the DVD does not automatically start, use the Windows Explorer to view the contents of the DVD. Double-click the `index.html` that is in the root of the DVD.

   > The installer fails if it is executed outside of the DVD directory structure. To install SOA PE without the DVD, copy the entire contents of the DVD (not just the installer executable) onto the target system. Then run the installer from within the copied DVD directory structure.

3. From the start page, click **SOA Policy Enforcer** located in the Available Installation Components section.
4. Open `Installation\Disk1\InstData\Windows\VM` and run `HPSOAPolicyEnforcerInstaller3.10.exe`. The installation prepares followed by the Introduction screen. Follow the on-screen instructions for installing SOA PE and SOA PE Broker.
5. During installation, the installation wizard prompts you for the following settings:
   - Select a JVM to be used by the SOA PE. You must select a JDK JVM and not a JRE. In addition, the JDK version must be 1.4.2_16 or later or version 1.5 or later. JDK version 1.6 is currently not supported.

     > It is recommended that you use JDK version 1.5 with SOA PE.

   - Select whether you want to install the default policies bundled with SOA PE. If you clear the option **Default Policies** on the Install Default Policies page, the installer does not install the default policies bundled with SOA PE. After the installation of SOA PE and configuration of the Systinet repository, SOA PE imports the policies from the Systinet repository.
   - Select whether you want to have the SOA PE and the Broker installed as Windows services. If you do not select to have the components installed as Windows services, you can do so at a later time using instructions provided in the *SOA PE User Guide*. If you are installing in a production environment, it is recommended that you install both the SOA PE and the Broker as Windows services.
6. After the installation is complete, review the log of the installation for any warnings or errors (<*install_dir*>`\HP_SOA_Policy_Enforcer_3.10_InstallLog.xml).` <install_dir> refers to the directory in which you installed SOA PE.
7. If this is the first time you are installing SOA PE or Broker, read the *SOA PE User Guide* for instructions on setting up and using these components.

HP-UX Installation

To install SOA PE on a UNIX platform:

1. Log on to the system as a `root` user.
2. Place the SOA PE DVD in the DVD drive.
3. Open a command prompt and mount the DVD if your system is not set to automatically mount. See your platform documentation for detailed mounting instructions.

   The installer fails if it is executed outside of the DVD directory structure. To install SOA PE without the DVD, copy the entire contents of the DVD (not just the installer executable) onto the target system. Then run the installer from within the copied DVD directory structure.

4. From the mount directory, change directories to `/Installation/Disk1/InstData/`<*UNIX_Platfom*>`/VM`.
5. Declare the `HPSOAPolicyEnforcerInstaller3_10.bin` an executable with global permissions:

   ```
   chmod +x HPSOAPolicyEnforcerInstaller3_10.bin
   ```

6. Run the installer:

   ```
   sh HPSOAPolicyEnforcerInstaller3_10.bin
   ```

   The installation prepares followed by the Introduction screen. Follow the on-screen instructions for installing SOA PE and Broker.

7. During installation, you are asked to configure the following options:
   - Select a JVM to be used by the SOA PE. You must select a JDK JVM and not a JRE. In addition, the JDK version must be 1.4.2_16 or later or version 1.5 or later. JDK version 1.6 is currently not supported.

     It is recommended that you use JDK version 1.5 with SOA PE.

   - Select whether you want to install the default policies bundled with SOA PE. If you choose not to install the default policies, after the installation of SOA PE and configuration of the Systinet repository, SOA PE imports the policies from the Systinet repository.
8. After the installation is complete, review the log of the installation for any warnings or errors (<*install_dir*>`/HP_SOA_Policy_Enforcer_3.10_InstallLog.xml`).
9. If this is the first time you are installing SOA PE or Broker, read the *SOA PE User Guide* for instructions on setting up and using these components.

Linux Installation

To install SOA PE on the Linux platform:

1. Log on to the system as a `root` user.

2 Place the SOA PE DVD in the DVD drive.

3 Open a command prompt and mount the DVD if your system is not set to automatically mount. See your platform documentation for detailed mounting instructions.

> The installer fails if it is executed outside of the DVD directory structure. To install SOA PE without the DVD, copy the entire contents of the DVD (not just the installer executable) onto the target system. Then run the installer from within the copied DVD directory structure.

4 From the mount directory, change directories to `/Installation/Disk1/InstData/Linux/VM`.

5 Declare the `HPSOAPolicyEnforcerInstaller3_10.bin` an executable with global permissions:

```
chmod +x HPSOAPolicyEnforcerInstaller3_10.bin
```

6 Run the installer:

```
sh HPSOAPolicyEnforcerInstaller3_10.bin
```

The installation prepares followed by the Introduction screen. Follow the on-screen instructions for installing SOA PE and Broker.

7 During installation, you are asked to configure the following options:

— Select a JVM to be used by the SOA PE. You must select a JDK JVM and not a JRE. In addition, the JDK version must be 1.4.2_16 or later or version 1.5 or later. JDK version 1.6 is currently not supported.

> It is recommended that you use JDK version 1.5 with SOA PE.

— Select whether you want to install the default policies bundled with SOA PE. If you choose not to install the default policies, after the installation of SOA PE and configuration of the Systinet repository, SOA PE imports the policies from the Systinet repository.

8 After the installation is complete, review the log of the installation for any warnings or errors (<*install_dir*>`/HP_SOA_Policy_Enforcer_3.10_InstallLog.xml`).

9 If this is the first time you are installing SOA PE or Broker, read *SOA PE User Guide* for instructions on setting up and using these components.

> After the installation is complete, verify that the environment variable MIP_JAVA_HOME was created and that it is set to the JDK directory. If the variable is not created, you must manually create it and set it to the JDK directory.

Solaris Installation

To install SOA PE on the Solaris platform:

1 Log on to the system as a `root` user.

2 Place the SOA PE DVD in the DVD drive.

3 Open a command prompt and mount the DVD if your system is not set to automatically mount. See your platform documentation for detailed mounting instructions.

> The installer fails if it is executed outside of the DVD directory structure. To install SOA PE without the DVD, copy the entire contents of the DVD (not just the installer executable) onto the target system. Then run the installer from within the copied DVD directory structure.

4 From the mount directory, change directories to `/Installation/Disk1/InstData/Solaris/VM`.

5 Declare the `HPSOAPolicyEnforcerInstaller3_10.bin` an executable with global permissions:

```
chmod +x HPSOAPolicyEnforcerInstaller3_10.bin
```

6 Run the installer:

```
sh HPSOAPolicyEnforcerInstaller3_10.bin
```

The installation prepares followed by the Introduction screen. Follow the on-screen instructions for installing SOA PE and Broker.

7 During installation, you are asked to configure the following options:

- Select a JVM to be used by the SOA PE. You must select a JDK JVM and not a JRE. In addition, the JDK version must be 1.4.2_16 or later or version 1.5 or later. JDK version 1.6 is currently not supported.

> It is recommended that you use JDK version 1.5 with SOA PE.

- Select whether you want to install the default policies bundled with SOA PE. If you choose not to install the default policies, after the installation of SOA PE and configuration of the Systinet repository, SOA PE imports the policies from the Systinet repository.

8 After the installation is complete, review the log of the installation for any warnings or errors (<*install_dir*>`/HP_SOA_Policy_Enforcer_3.10_InstallLog.xml`).

9 If this is the first time you are installing SOA PE or Broker, read *SOA PE User Guide* for instructions on setting up and using these components.

> After the installation is complete, verify that the environment variable MIP_JAVA_HOME was created and that it is set to the JDK directory. If the variable is not created, you must manually create it and set it to the JDK directory.

Applying Policy Vocabulary Extensions

If you are using HP SOA PE with HP SOA Systinet, you must apply the Governance Interoperability Framework (GIF) policy vocabulary extensions and export taxonomies as follows before starting HP SOA PE:

1. Copy PolicyVocabulary-extension.jar present in <CD_DRIVE>\Addons\systinet to <systinet_install_dir>\extensions

   ➤ Run the .bat or .sh file.in this procedure based on the operating system you are using. In this procedure, it is assumed that you are using the Microsoft Windows operating system.

2. Run serverstop.bat present in <systinet_install_dir>\bin folder and wait for the Systinet server to stop
3. From the command prompt, run setup.bat present in <sytinet_install_dir>\bin.
4. In the Scenario Selection screen select **Apply Extensions** and click **Next**. This applies the GIF policy vocabulary extensions.
5. After importing the extensions, run serverstart.bat present in <systinet_install_dir>\bin to start HP SOA Systinet
6. Export the taxonomies with the following name from HP SOA Systinet to Registry
   - systinet-com:soa:model:taxonomies:policyApplicableArtifact
   - systinet-com:soa:model:taxonomies:policyCategory
   - systinet-com:soa:model:taxonomies:policySubcategory
   - systinet-com:soa:model:taxonomies:reusable
   - systinet-com:soa:model:taxonomies:version

Entering an SOA PE License

The SOA PE licenses are installed using the License Manager. You must obtain a permanent license from your HP sales representative. Detailed instructions for installing licenses are included in the License Manager's Online Help. In addition, you must be logged in to the system as a `root/admin` user.

To start the License Manager:

Windows:

Select **Start** | **Programs** | **HP Software** | **SOA Policy Enforcer 3.10** | **License Manager**. Or, from the command line, run:

<install_dir>`\bin\win32\miplicense.bat`

UNIX:

To start the SOA PE License Manager on UNIX, from the command line, run:

<install_dir>`/bin/unix/miplicense`

Uninstalling

Uninstalling the SOA PE removes the MIP_JAVA_HOME system variable. Other SOA PE installations on the system will fail, once the variable is removed. You must manually add this variable back if your system contains additional SOA PE installations.

The installer for SOA PE creates uninstall files and places them in the <*install_directory*>`/UninstallerData` directory. Windows users can use **Add/Remove Program** located in the **Control Panel**.

Upgrading from Version 3.00 to 3.10

Follow the instructions below to upgrade SOA PE Broker and SOA PE from version 3.00 to version 3.10.

To migrate existing HP Systinet configuration with SOA PE, contact HP Support at **www.hp.com/go/hpsoftwaresupport**

Broker

1. If you changed any HTTP Settings, then migrate the changes from the <*3.00_install_dir*>`/conf/broker/mipServer.xml` file to the 3.10 installation. Do not copy the 3.00 `mipServer.xml` into the 3.10 installation directory. Instead copy each entry you changed in the 3.00 `mipServer.xml` into the 3.10 `mipServer.xml`.
2. If you changed any SSL Settings, then migrate the changes from the <*3.00_install_dir*>`/conf/mipServer.xml` file to the 3.10 installation. Do not copy the 3.00 `mipServer.xml` into the 3.10 installation directory. Instead copy each entry you changed in the 3.00 `mipServer.xml` into the 3.10 `mipServer.xml`.
3. Copy the service jar files from <*3.00_install_dir*>`/conf/broker` to the <*3.10_install_dir*>`/conf/broker` installation.
4. Start the 3.10 version of the Broker.

SOA PE

To upgrade SOA PE:

1. Start the 3.00 version of SOA PE.
2. Use the Export business service feature from the SOA PE user interface to export the business services that are to be migrated to the 3.10 installation.
3. Use the Export policies feature from the SOA PE user interface to export the policies that must be migrated to the 3.10 installation.
4. Stop the 3.00 version of SOA PE.

5. Install the 3.10 version of SOA PE in a separate directory.
6. If you changed any General Settings or UDDI Settings, then migrate the changes from the <*3.00_install_dir*/>`conf/networkservices/mipServer.xml` file to the 3.10 installation. When using Oracle, be sure to copy the Oracle configuration from the 3.00 `mipServer.xml` into the 3.10 `mipServer.xml`. Do not copy the 3.00 `mipServer.xml` into the 3.10 installation directory; instead copy each entry that was changed in the 3.00 `mipServer.xml` into the 3.10 `mipServer.xml`.
7. If you changed or added any notification recipients, then migrate the changes from the <*3.00_install_dir*>/`conf/notification.xml` file to the 3.10 installation. Do not copy the 3.00 `notification.xml` into the 3.10 installation directory; instead copy each entry you changed in the 3.00 `notification.xml` into the 3.10 `notification.xml`.
8. To migrate the existing data, follow the steps based on the database you had configured:
   - When using Oracle:
     - Add the new tables from <*3.10_install_dir*>`/data/oracle/Upgrade3.1Db-Oracle` to the Oracle database.
   - When using HSQL:
     - Copy all the files in the <*3.00_install_dir*>/`data/hsqldb` from the 3.00 installation to the 3.10 installation.
     - Add the new tables from <*3.10_install_dir*>`/data/hpsqldb/Upgrade3.1Db` into the HSQL database as follows:
       - Set the current directory from the command prompt to <*3.10_install_dir*>`/lib/ext`.
       - Run: `java -cp hsqldb.jar org.hsqldb.util.DatabaseManager`.
       - In the Type field, select **HSQL Database Engine Standalone**.
       - In the URL field, replace `<<database/path?>>` with <*3.10_install_dir*>`/data/hsqldb/sn`.
       - Click **OK**.
       - Copy all the lines from the <*3.10_install_dir*>`/data/hsqldb/Upgrade3.1Db` file and paste it into the upper right box in the HSQL Database Manager
       - Click **Execute**.
9. Exit the HSQL Database Manager.
10. If you changed any registry settings, disable (comment) the following lines in the mipServer.xml file present in the <*3.10_install_dir*>/conf/networkservices folder:

```
<!-- UDDI registry properties -->

    <entry name="com.hp.uddi.publish.url"/>

    <entry name="com.hp.uddi.inquiry.url"/>

    <entry name="com.hp.uddi.security.url"/>

    <entry name="com.hp.uddi.subscription.url"/>

    <entry name="com.hp.uddi.subscription.validity">1</entry>
    <entry
name="com.hp.uddi.subscription.notification.interval">10000</entry>

    <entry name="com.hp.uddi.publish.username"/>

    <entry name="com.hp.uddi.publish.password"/>

    <entry name="com.hp.uddi.policy-
expression.base.url">/bse_refresh/PolicyExpression.jsp?cwcPopup=true&amp
;policy=</entry>

    <entry name="com.hp.uddi.maximum.rows"/>
```

11. Start the 3.10 version of SOA PE.
12. Use the Import policies feature from the SOA PE user interface to import the policies that were exported from the 3.00 installation. See the section *Importing Policies* in *HP SOA PE User Guide* for more information about importing policies.
13. Use the Import business services feature from the SOA PE user interface to import the business services that were exported from the 3.00 installation. See the *Importing a Business Service* section in the *HP SOA PE User Guide* for more information about importing business services.
14. Stop the 3.10 version of SOA PE.
15. Enable (uncomment) the lines corresponding to the registry settings if you had disabled those lines during this procedure.
16. To migrate the XACML authorization policies, you must perform the following steps:
    a. Copy the `Authorization Policies` directory from the <3.00_install_dir>\conf\networkservices directory to the <3.10_install_dir>\conf\networkservices directory
    b. Copy the `authpolicy` directory from the <3.00_install_dir>\conf\broker directory to the <3.10_install_dir>\conf\broker directory
17. Start version 3.10 of SOA PE.

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