



SOA Software Platform 7.2 Installation Guide for Windows and UNIX Platforms

Trademarks

SOA Software and the SOA Software logo are either trademarks or registered trademarks of SOA Software, Inc. Other product names, logos, designs, titles, words or phrases mentioned within this guide may be trademarks, service marks or trade names of SOA Software, Inc. or other third parties and may be registered in the U.S. or other jurisdictions.

Copyright

©2001-2014 SOA Software, Inc. All rights reserved. No material in this manual may be copied, reproduced, republished, uploaded, posted, transmitted, distributed or converted to any electronic or machine-readable form in whole or in part without prior written approval from SOA Software, Inc.

Table of Contents

SOA SOFTWARE PLATFORM 7.2 INSTALLATION GUIDE FOR WINDOWS AND UNIX PLATFORMS.....	I
Preface	8
Before You Begin	8
System Requirements	9
Installation Directory	10
Installation Directory Folder Descriptions	11
SOA Software Platform Program Group.....	13
Documentation	13
In This Guide	14
Customer Support	14
Chapter 1: Installing and Configuring SOA Software Platform.....	15
Overview.....	15
Manually Installing Schemas.....	15
SOA Software Platform Setup Files	15
Step 1: Install SOA Software Platform	16
Install SOA Software Platform (GUI)	16
Install SOA Software Platform (Console).....	21
Install SOA Software Platform (Silent).....	24
Step 2: Install SOA Software Platform Updates	26
Step 3: Configure Standalone Container Instance.....	27
Configure Standalone Container Instance (GUI)	27
Configure Standalone Container Instance (Silent).....	34
Step 4: Launch SOA Software Administration Console	36
Step 5: Select Keystore Approach (External or Policy Manager Default)	37
Step 6: Install Policy Manager Features.....	38
Step 7: Configure Policy Manager Features.....	41
Configure Policy Manager Console/Web Services	41
Configure PKI Keys (Policy Manager Console/Web Services)	42
Configure Database Options (Policy Manager Console/Web Services)	44
Configure Policy Manager Administrator Credentials (Policy Manager Console/Web Services)	57
Completing the Configuration (Policy Manager Console/Web Services)	59
Step 8: Perform SOA Software Administration Console Login (Policy Manager Console/Web Services)	59
Step 9: Launch Policy Manager Management Console.....	60
Chapter 2: Installing Updates to Existing SOA Software Platform Installation	61
Confirm Installed Updates	61
Manually Installing Schemas.....	61
Update Existing SOA Software Platform 7.2 Installation (Manual)	61
Update Existing SOA Software Platform 7.2 Installation (Silent Update)	69
Rollback Update	74

Chapter 3: Installing and Configuring Network Director	78
Overview.....	78
Step 1: Configure Network Director Container Instance	78
Configure Network Director Container Instance (GUI).....	78
Configure Network Director Container Instance (Silent Configuration).....	85
Step 2: Launch SOA Software Administration Console.....	87
Step 3: Install Feature (SOA Software Network Director)	87
Step 4: Configure Network Director.....	90
Configure WS-MetaDataExchange Options (Network Director).....	91
Manage PKI Keys (Network Director).....	92
Completing the Configuration (Network Director)	95
Perform SOA Software Administration Console Login (Network Director)	96
Step 5: Register Network Director Container.....	97
Chapter 4: SOA Software Administration Console	104
Overview.....	104
Admin Console Organization	104
Available Features.....	104
Installed Features	105
Configuration	106
Repository.....	107
System	113
Appendix A: Start / Stop / Restart Container Instance	115
Start / Stop Container Instance	115
Restart Container Instance.....	115
Appendix B: Database Drivers	117
Appendix C: Uninstalling SOA Software Platform	118
Overview.....	118
Backup Procedures	118
Uninstall SOA Software Platform (GUI)	118
Uninstall SOA Software Platform (Console).....	121

Table of Figures

Figure I: SOA Software Platform Installation Directory— <i>Complete Installation</i>	10
Figure 1-1: Enter License Key— <i>GUI Install</i>	16
Figure 1-2: Introduction— <i>GUI Install</i>	17
Figure 1-3: SOA Software License— <i>GUI Install</i>	17
Figure 1-4: System Requirements— <i>GUI Install</i>	18
Figure 1-5: Choose Install Folder— <i>GUI Install</i>	18
Figure 1-6: Choose Shortcut Folder— <i>GUI Install</i>	19
Figure 1-7: Pre-Installation Summary— <i>GUI Install</i>	19
Figure 1-8: Installing— <i>Progress Indicator</i>	20
Figure 1-9: Install Complete— <i>GUI Install</i>	20
Figure 1-10: Enter License Key— <i>Console Install</i>	21
Figure 1-11: Introduction— <i>Console Install</i>	22
Figure 1-12: License Agreement— <i>Console Install</i>	22
Figure 1-13: System Requirements— <i>Console Install</i>	23
Figure 1-14: Choose Install Folder— <i>Console Install</i>	23
Figure 1-15: Welcome to Configure Container Instance— <i>Standalone Deployment</i>	28
Figure 1-16: Instance Name— <i>Standalone Deployment</i>	28
Figure 1-17: Default Admin User— <i>Standalone Deployment</i>	29
Figure 1-18: Instance Configuration Options— <i>Standalone Deployment</i>	30
Figure 1-19: Default HTTP Listener— <i>Standalone Deployment</i>	30
Figure 1-20: Instance Setup— <i>Standalone Deployment</i>	31
Figure 1-21: Launch Admin Console— <i>Standalone Deployment</i>	32
Figure 1-22: Instance Configuration Summary— <i>Standalone Deployment</i>	33
Figure 1-23: SOA Software Administration Console— <i>Login</i>	36
Figure 1-24: SOA Software Administration Console— <i>Available Features Tab</i>	37
Figure 1-25: Policy Manager Console/Web Services Installation— <i>Available Features Tab</i>	38
Figure 1-26: Policy Manager Console/Web Services Installation — <i>Install Feature – Resolve Phase</i>	39
Figure 1-27: Policy Manager Console/Web Services Installation— <i>Install Feature – Feature Resolution Report</i>	39
Figure 1-28: Policy Manager Console/Web Services Installation— <i>Install Feature – Install In Progress</i>	40
Figure 1-29: Policy Manager Console/Web Services Installation— <i>Install Feature – Installation Complete</i>	40
Figure 1-30: Manage PKI Keys Wizard (Select Key Management Option)— <i>Policy Manager Console/Web Services</i>	42
Figure 1-31: Manage PKI Keys Wizard (Generate PKI Keys & X.509 Certificate)— <i>Policy Manager Console/Web Services</i>	43
Figure 1-32: Manage PKI Keys Wizard (Summary)— <i>Policy Manager Console/Web Services</i>	44
Figure 1-33: Configure Database Options Wizard (Select Database Option—Create new database)— <i>Policy Manager Console/Web Services</i>	45
Figure 1-34: Configure Database Options Wizard (Select Database Option—Use existing database)— <i>Policy Manager Console/Web Services</i>	45
Figure 1-35: Specify Database Options (MS SQL Server #1)— <i>Policy Manager Console/Web Services</i>	47
Figure 1-36: Specify Database Options (MS SQL Server #2)— <i>Policy Manager Console/Web Services</i>	47
Figure 1-37: Specify Database Options (MySQL Server #1)— <i>Policy Manager Console/Web Services</i>	49

Figure 1-38: Specify Database Options (MySQL Server #2)— <i>Policy Manager Console/Web Services</i>	49
Figure 1-39: Specify Database Options (Oracle SID #1)— <i>Policy Manager Console/Web Services</i>	50
Figure 1-40: Specify Database Options (Oracle SID #2)— <i>Policy Manager Console/Web Services</i>	51
Figure 1-41: Specify Database Options (Oracle Service Name #1)— <i>Policy Manager Console/Web Services</i>	52
Figure 1-42: Specify Database Options (Oracle Service Name #2)— <i>Policy Manager Console/Web Services</i>	52
Figure 1-43: Specify Database Options (DB2 #1)— <i>Policy Manager Console/Web Services</i>	54
Figure 1-44: Specify Database Options (DB2 #2)— <i>Policy Manager Console/Web Services</i>	54
Figure 1-45: Configure Database Options Summary	55
Figure 1-46: Manage Schemas Wizard (Install Schemas)— <i>Policy Manager Console/Web Services</i>	56
Figure 1-47: Manage Schemas Wizard (Install Schemas Summary)— <i>Policy Manager Console/Web Services</i>	57
Figure 1-48: Define Policy Manager Administration Credentials— <i>Policy Manager Console/Web Services</i>	58
Figure 1-49: Define Policy Manager Administration Credentials (Credentials Summary)— <i>Policy Manager Console/Web Services</i>	58
Figure 1-50: Complete Configuration— <i>Policy Manager Console/Web Services</i>	59
Figure 1-51: SOA Software Administration Console— <i>Login Screen</i>	60
** 60	
Figure 2-1: Configure Container Instance Wizard— <i>Welcome to Configure Container Instance</i>	63
Figure 2-2: Configure Container Instance Wizard— <i>Instance Name</i>	64
Figure 2-3: Instance Already Exists— <i>Update</i>	65
Figure 2-4: Configure Container Instance Wizard— <i>Instance Configuration Summary (Complete Update)</i>	65
Figure 2-5: Configure Container Instance Wizard— <i>Update Complete</i>	66
Figure 2-6: SOA Software Administration Console— <i>Login</i>	68
Figure 2-7: SOA Software Administration Console— <i>Available Features Tab</i>	68
Figure 2-8: SOA Software Administration Console— <i>Login</i>	72
Figure 2-9: SOA Software Administration Console— <i>Available Features Tab</i>	73
Figure 2-10: Configure Container Instance Wizard— <i>Welcome to Configure Container Instance</i>	74
Figure 2-11: Configure Container Instance Wizard— <i>Instance Name</i>	75
Figure 2-12: Instance Already Exists— <i>Rollback</i>	76
Figure 2-13: Configure Container Instance Wizard— <i>Instance Configuration Summary (Rollback in Progress)</i>	76
Figure 2-14: Configure Container Instance Wizard— <i>Rollback Complete</i>	77
Figure 3-1: Welcome to Configure Container Instance	79
Figure 3-2: Instance Name— <i>Standalone Deployment</i>	80
Figure 3-3: Default Admin User— <i>Standalone Deployment</i>	80
Figure 3-4: Instance Configuration Options— <i>Standalone Deployment</i>	81
Figure 3-5: Default HTTP Listener— <i>Standalone Deployment</i>	81
Figure 3-6: Instance Setup— <i>Standalone Deployment</i>	82
Figure 3-7: Launch Admin Console— <i>Standalone Deployment</i>	83
Figure 3-8: Instance Configuration Summary— <i>Standalone Deployment</i>	84
Figure 3-9: SOA Software Administration Console— <i>Login</i>	87
Figure 3-10: SOA Software Network Director Installation— <i>Available Features Tab</i>	88
Figure 3-11: SOA Software Network Director Installation— <i>Install Feature – Resolve Phase</i>	88

Figure 3-12: SOA Software Network Director Installation— <i>Install Feature – Feature Resolution Report</i>	89
Figure 3-13: SOA Software Network Director Installation— <i>Install Feature – Install In Progress</i>	89
Figure 3-14: SOA Software Network Director Installation— <i>Install Feature – Installation Complete</i>	90
Figure 3-15: Configure WS-MetadataExchange Options Wizard (WS-MetaDataExchange Options)— <i>Network Director</i>	92
Figure 3-16: Configure WS-MetadataExchange Options Wizard (WS-MetaDataExchange Options Summary)— <i>Network Director</i>	92
Figure 3-17: Manage PKI Keys Wizard (Select Key Management Option)— <i>Network Director</i>	93
Figure 3-18: Manage PKI Keys Wizard (Generate PKI Keys & X.509 Certificate)— <i>Network Director</i>	94
Figure 3-19: Manage PKI Keys Wizard Summary— <i>Network Director</i>	95
Figure 3-20: Complete Configuration— <i>Network Director</i>	96
Figure 3-21: SOA Software Administration Console— <i>Login (Admin Console)</i>	97
Figure 3-22: Register Network Director— <i>Add Container Wizard (Select Container Type)</i>	98
Figure 3-23: Register Network Director— <i>Add Container Wizard (Specify Metadata Import Options)</i>	99
Figure 3-24: Register Network Director— <i>Add Container Wizard (Specify Metadata Import Options – Metadata Path selected)</i>	99
Figure 3-25: Register Network Director— <i>Add Container Wizard (X.509 Certificate Not Trusted)</i>	100
Figure 3-26: Register Network Director— <i>Add Container Wizard (Specify Container Details)</i>	101
Figure 3-27: Register Network Director— <i>Add Container Wizard (Completion Summary)</i>	102
Figure 3-28: Register Network Director— <i>Container Details</i>	102
Figure 3-29: Register Network Director— <i>Hosted Services Summary</i>	103
Figure 4-1: SOA Software Administration Console— <i>Available Features</i>	105
Figure 4-2: SOA Software Administration Console— <i>Installed Features</i>	106
Figure 4-3: SOA Software Administration Console— <i>Configure</i>	107
Figure 4-4: Admin Console— <i>Repository (Add Repository)</i>	108
Figure 4-5: Admin Console— <i>Search for Updates Button</i>	109
Figure 4-6: Admin Console— <i>Searching for Updates</i>	110
Figure 4-7: Admin Console— <i>Installed Features (Updates Found)</i>	110
Figure 4-8: Admin Console— <i>Installed Features (Updating)</i>	111
Figure 4-9: Admin Console— <i>Installed Features (Bundle Filter)</i>	111
Figure 4-10: Admin Console— <i>Rollback Changes Button</i>	112
Figure 4-11: Admin Console— <i>Installed Features (Rollback Changes)</i>	112
Figure 4-12: Admin Console— <i>Installed Features (Restart System after Rollback Message)</i>	113
Figure 4-13: SOA Software Administration Console— <i>System</i>	114
Figure A-1: SOA Software Administration Console— <i>System</i>	116
Figure C-1: Start Uninstall— <i>GUI</i>	119
Figure C-2: Cancel Installation— <i>Uninstall Not Complete Message</i>	119
Figure C-3: Uninstall Warning Message	120
Figure C-4: Uninstalling SOA Software Platform— <i>GUI</i>	120
Figure C-5: Uninstall Complete— <i>GUI</i>	121
Figure C-6: Start Uninstall— <i>Console</i>	122
Figure C-7: Uninstalling SOA Software Platform— <i>Console</i>	122

Preface

This guide provides instructions for installing the SOA Software Platform 7.2 GA, SOA Software Platform Updates, configuring a Container Instance, installing Policy Manager Features using the SOA Software Administration Console, and performing administration tasks.

Installing and configuring SOA Software Platform 7.2 and installing Policy Manager Features are the primary focus of this guide. Additional chapters are provided on installing the Network Director, SOA Software Administration Console functionality, and Appendix chapters covering container startup, database drivers, and the SOA Software Platform 7.2 uninstall process.

SOA Software Platform 7.2 is installed using a platform-specific setup file that loads the "SOA Software Platform Installation Wizard." The configuration process is performed using the "Configure Container Instance Wizard" and the "SOA Software Administration Console."

BEFORE YOU BEGIN

The SOA Software Platform 7.2 installation process includes the following mandatory pre-installation steps for *new* and *upgrade* installations:

SOA Software Platform Pre-installation Requirements

SOA Software Platform Installation Scenario	Pre-installation Requirements
New Installation	If you are installing the SOA Software Platform 7.2 release and no previous Policy Manager installations exist, there are no pre-installation requirements.
Policy Manager Upgrades (7.1 to 7.2 and 6.1 to 7.2)	If you currently have Policy Manager 6.1 and would like to upgrade to Policy Manager 7.2, refer to the "Policy Manager 7.2 Upgrade Technical Note." You can download the guide from the SOA Software Customer Support website (https://support.soa.com/support). Note: If you have not upgraded to Policy Manager 6.1, and have Policy Manager 6.0 or earlier, you will need to upgrade to Policy Manager 6.1 first, and then perform the 6.1 to 7.2 upgrade. Contact SOA Software Customer Support for assistance in assessing your required migration plan.

SYSTEM REQUIREMENTS

The following table lists the minimum system requirements for running the SOA Software Platform on *Windows* and *UNIX* platforms.

Note: System Requirements evolve and change over time. To obtain the most up-to-date System Requirements list, refer to the "System Requirements for Policy Manager 7.x" topic on the SOA Software Documentation Repository website (docs.soa.com).

Component Name	Requirement
SOA Software Platform Host	<u>Hardware</u> Single CPU, 2Ghz, 2GB RAM <u>Operating System</u> <i>Windows</i> Windows Server 2012 Windows Server 2008 Windows 8 Windows 7 <i>Linux</i> Red Hat Enterprise Linux 5.8, 6.2 <i>Solaris</i> Solaris 10, 11 <i>IBM AIX</i> AIX 5.2 and 5.3
Client Browser for accessing UI of SOA Software Platform Features.	IE 8.0 and above Mozilla Firefox 10+ and above Google Chrome v17 and above
Database Management Systems	Oracle 11g (SID, Service Name)— Requires database driver <code>ojdbc5.jar</code> (11g). <ul style="list-style-type: none"> Microsoft SQL Server 2008, 2012—<i>Database driver included with SOA Software Platform.</i> Note: Quartz trigger property must be set to True. See instructions in the <i>Configure Database Options (Policy Manager Console/Web Services)</i> section for MSSQL. IBM DB2 Universal Database V9.7, V10.5—(V.97 requires <i>DB2 Universal JDBC Driver</i> (e.g., <code>db2jcc.jar</code>). MySQL 5.1—<i>Requires database driver</i> <code>com.mysql.jdbc-5.1.6.jar</code> <p>Note: After installing the SOA Software Platform and running the "Configure Container Instance Wizard," the database driver .jar file must be dropped into the "/deploy" directory of the container instance that requires the driver (e.g., <code>sm70/instances/<instance name>/deploy</code>) prior to running the database configuration task via the "SOA Software Administration Console."</p>

Component Name	Requirement
	Note: The database will usually not reside on the computer that is hosting the SOA Software Platform.
Database Sizing Guidelines	<ul style="list-style-type: none"> • The base install, with configuration data, consumes an initial 10MB of space. • Each detailed transaction log consumes approximately 500 bytes of database storage space. Typically, however, only 5% of transactions are logged in this manner. This means that 25KB of database storage space will be consumed for every 1000 transactions. At the transaction rate used in the test – 1250TPS – the database storage space was consumed at the rate of 112MB per hour. • Assume an average recorded message size of 10KB. Typically, however, only 1% of transactions are logged in this manner. • Alerts, performance data and SLA Rollup data add up to approximately 1KB per 100 transactions.
Memory Configuration	The default maximum heap size for all SOA Software Containers (i.e., Java processes) is 2048 MB.
Documentation	A subset of the SOA Software Platform product documentation is published in Portable Document Format (PDF) and requires Acrobat Reader 9.0 or above.

INSTALLATION DIRECTORY

The following figure shows the directory structure of a SOA Software Platform installation:



Figure I: SOA Software Platform Installation Directory—Complete Installation

Installation Directory Folder Descriptions

The SOA Software Platform Installation Wizard uses a default installation directory \SOA Software. The recommended directory structure organization is to add a new "Release Directory" under \SOA Software for each SOA Software Platform release. Using this model, an installation directory structure for the SOA Software Platform 7.2 release could be \SOA Software\SM70. This directory structure approach facilitates that product upgrade and maintenance process.

The SOA Software Platform installation includes the following directory folders:

SOA Software Platform Installation Directory Folder Descriptions

Installation Directory Folder	Description
\bin	The \bin folder includes the SOA Software Platform shell and batch scripts. This includes Start /Stop scripts for all the SOA Software Platform processes, scripts used to register and un-register Windows services, and scripts for launching the SOA Software Platform administration and configuration wizards. This folder also includes a script run the SOA Software Platform product as a unique Cron job.
\config	The \config folder includes SOA Software Platform properties files. These property files are reserved for system use.
\dbscripts	The \dbscripts folder includes all the database scripts required for loading SOA Software Platform data and schemas including new installation, upgrade installation, automated database schema creation, or manual schema loading.
\docs	The \docs folder includes: <ul style="list-style-type: none"> • \Users_Guide - Policy Manager Online Help. <i>Launch page:</i> welcome_to_service_manager.htm. • \apiDocs – Policy Manager API documentation. <i>Launch page:</i> index.htm • scriptDocs – Policy Manager Scripting API. <i>Launch page:</i> index.htm
\export	The \export folder is used by the export usage data rollup functionality.
\instances	<ul style="list-style-type: none"> • The \instances folder is a runtime created folder. Each time a new container instance is created a new folder is created using the assigned container name. • A container instance folder can also include the following sub-folders. • asynchworkflow – Stores code samples for platform APIs. • \cache - Stores OSGI bundles for installed features. • \cm – Stores configuration data associated with SOA Software Administration Console "Configure" tab. • \deploy - Includes properties files (com.soa.config.cfg and com.soa.log.cfg) that include SOA Software Platform default configuration settings. These files are used to push default configuration information to the

SOA Software Platform Installation Directory Folder Descriptions

Installation Directory Folder	Description
	<p>Administration Console and are typically for one-time use only. These properties pushed to the Administration Console can be updated via the "Configuration" tab. Bundles and other .cfg files can also be added to the \deploy folder and will be published to the Administration Console. These properties can also be updated via the "Configuration" tab.</p> <ul style="list-style-type: none"> • \log - Stores log files that are automatically generated when a SOA Software Platform function is operating. The logging process records the actions performed for each SOA Software Platform function and stores the information in the log file. Log files can be archived for historical record based on your requirements. • \scriptStore - Stores code samples for platform APIs. • \snapshot - Stores changes to a container made during updates. Is also used for update roll backs. • \wsdlStore - Stores code samples for platform APIs.
\jre	<p>\jre - is a Java Runtime Environment (JRE) folder that is automatically created during a SOA Software Platform product installation.</p> <p>The SOA Software Platform is packaged with the following JRE version for each platform:</p> <ul style="list-style-type: none"> • For Windows and UNIX platforms - 64-bit version of JRE 7.0. • For the AIX platform - 64-bit version of JRE 6.0.
\keystore	<p>\keystore - includes the following sample keystore files:</p> <ul style="list-style-type: none"> • Keystore-default.jks—A keystore default file that contains ten self-signed certificates. This sample file is provided for users who would like to use the HTTPS functionality or Authentication with certificate functionality. • Keystore-empty.jks—An empty keystore that is saved in JKS format. It can be used to load any certificate for import into SOA Software Platform. • Readme.txt—A text file that includes descriptions for each sample key file and password information.
\lib	The \lib folder includes the jar files that are required for runtime of SOA Software Platform processes, and war files that support the SOA and 5.2 Legacy Container types.
\license	The \license folder includes a SOA Software Platform Third Party Dependencies document (<i>ThirdPartyLicenseAgreements.pdf</i>) that provides license information for the third party products utilized in the SOA Software Platform product implementation.
\mib	The \mib folder includes the "Management Information Base (mib)" file for SOA Software Platform that stores alerts raised in a SOA Software Platform deployment. The mib file is used to integrate Network Management Systems with SOA.

SOA Software Platform Installation Directory Folder Descriptions

Installation Directory Folder	Description
	Software Platform. The <code>mib</code> file is registered with Network Management Systems to enable the receipt of alerts from SOA Software Platform. After the integration is complete, alerts raised in the SOA Software Platform can be viewed via Network Management Systems.
\samples	\samples includes a series of sample use cases relating to security, policy handlers, logging, and scheduling configuration tasks.
\schemas	The \schemas folder includes cached schema documents that are used in the WS-Schema Validation Policy, Schema Validation Policy, and Schema Validation Pipeline Component.
\UninstallerData	The \Uninstaller folder stores key SOA Software Platform data required for the successful operation of the SOA Software Platform Uninstall process. <i>Note: This folder is for system use ONLY. Deleting or modifying this folder is not supported and will compromise the SOA Software Platform Uninstall process.</i>
<installation_name>.log	The <installation_name>.log file is created when a SOA Software Platform product installation occurs and includes time stamp information related to the installation.

SOA SOFTWARE PLATFORM PROGRAM GROUP

The SOA Software Platform Program Group includes the following menu options:

Menu Option	SOA Software Platform Function	Action
Configure Container Instance	Launches the "Configure Container Instance Wizard."	
Documentation	<i>Policy Manager Scripting API</i>	
	<i>Users Guide:</i> Launches Policy Manager 7.1 Online Help	

DOCUMENTATION

Documentation for the SOA Software Platform "Policy Manager" feature is available on the SOA Software Customer Support site and on the SOA Software Documentation Repository website (docs.soa.com). The following documents are available:

- SOA Software Platform Installation Guide
- Policy Manager 7.x Message Handler Programming Guide
- Policy Manager 7.x Delegate for Apache Axis Technical Note

- Policy Manager 7.x Custom Actions Technical Note
- Policy Manager Monitoring Data View Description
- SOA Software Platform Release Notes

IN THIS GUIDE

This guide includes the following chapters:

- Chapter 1 - Installing and Configuring SOA Software Platform
- Chapter 2 - Installing Updates to Existing SOA Software Platform Installation
- Chapter 3 - Installing and Configuring Network Director
- Chapter 4 - SOA Software Administration Console
- Appendix A - Start / Stop / Restart Container Instance
- Appendix B - Database Drivers
- Appendix C - Uninstalling SOA Software Platform

CUSTOMER SUPPORT

SOA Software offers a variety of support services to our customers. The following options are available:

Support Options:	
Email (direct)	support@soa.com
Phone	1-866 SOA-9876 (1-866-762-9876)
Email (Web)	The "Support" section of the SOA Software website (www.soa.com) provides an option for emailing product related inquiries to our support team.
Support Site	SOA Software Customer Support website (https://support.soa.com/support)
Documentation Updates	Updates to product documentation are issued on a periodic basis and are available by submitting an email request to support@soa.com .

Chapter 1: Installing and Configuring SOA Software Platform

OVERVIEW

SOA Software Platform 7.2 provides software releases for *Windows* and *UNIX* platforms. This chapter provides instructions on how to install the SOA Software Platform 7.2 application, apply updates, configure a Standalone Container Instance using the "Configure Container Instance Wizard," and install and configure Policy Manager Features using the SOA Software Administration Console.

GUI (Windows), Console (UNIX), and Silent (UNIX) instructions are provided for the SOA Software Platform installation process, and GUI and Silent instructions are provided for the configuration process.

Note: The console and silent installation methods are not supported for the Windows platform.

MANUALLY INSTALLING SCHEMAS

If you have a requirement to manually install the SOA Software Platform schemas, contact SOA Software Customer Support prior to beginning this installation to obtain a series of schema installation scripts and additional instructions.

SOA SOFTWARE PLATFORM SETUP FILES

The following table shows the platform options for the SOA Software Platform 7.2 setup executable. Refer to www.support.soa.com in the Downloads > Policy Manager > PM72 section.

Note: Installation setup files must be copied to the local directory prior to launch.

Platform	Setup File Name	Launch GUI	Launch Console
Windows	Windows-pm-7.2.xxxx-setup64.exe	Windows-pm-7.2.xxxx-setup64.exe	Windows-pm-7.2.xxxx-setup64.exe -i console
Linux	Windows-pm-7.2.xxxx-setup64.bin	sh Windows-pm-7.2.xxxx-setup64.bin	sh Windows-pm-7.2.xxxx-setup64.bin -i console

Platform	Setup File Name	Launch GUI	Launch Console
Solaris	Windows-pm-7.2.xxxx-setup64.bin	sh Windows-pm-7.2.xxxx-setup64.bin	sh Windows-pm-7.2.xxxx-setup64.bin -i console
AIX	Windows-pm-7.2.xxxx-setup64.bin	sh Windows-pm-7.2.xxxx-setup64.bin	sh Windows-pm-7.2.xxxx-setup64.bin -i console

STEP 1: INSTALL SOA SOFTWARE PLATFORM

This section provides a walkthrough for installing the SOA Software Platform. Select one of the following installation methods.

- Install SOA Software Platform (GUI)
- Install SOA Software Platform (Console)
- Install SOA Software Platform (Silent)

Install SOA Software Platform (GUI)

This section provides instructions for performing a *GUI* installation of the SOA Software Platform application using the "SOA Software Platform Installation Wizard." In order to begin installation of the SOA Software Platform, you must have administrator privileges on your computer.

To Install SOA Software Platform (GUI)

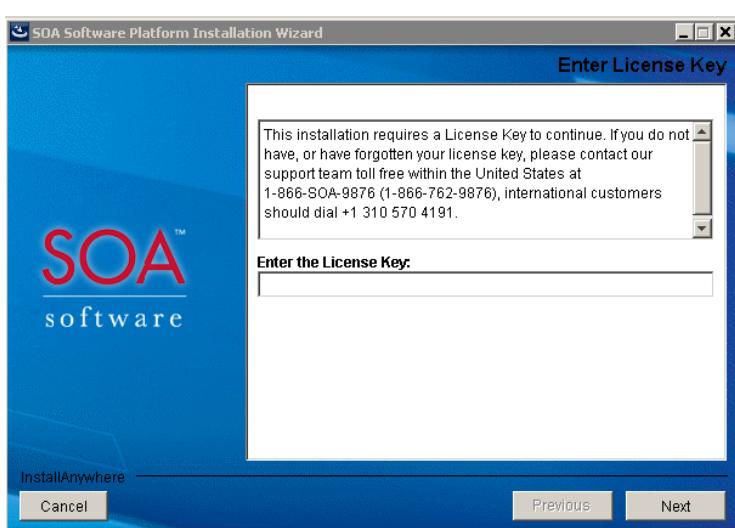
Step	Procedure
1.	<p>Launch the SOA Software Platform installation setup file (Windows-pm-7.2.xxxx-setup64.exe). The installation files will begin to extract. When this process is complete, the "Enter License Key" screen displays.</p> 

Figure 1-1: Enter License Key—GUI Install

To Install SOA Software Platform (GUI)

2. Enter the license key that was supplied to you and click **Next**. The "Introduction" screen displays.

Note: If you do not have a license key, contact SOA Software Customer Service department. You can find the contact information at the beginning of this guide.

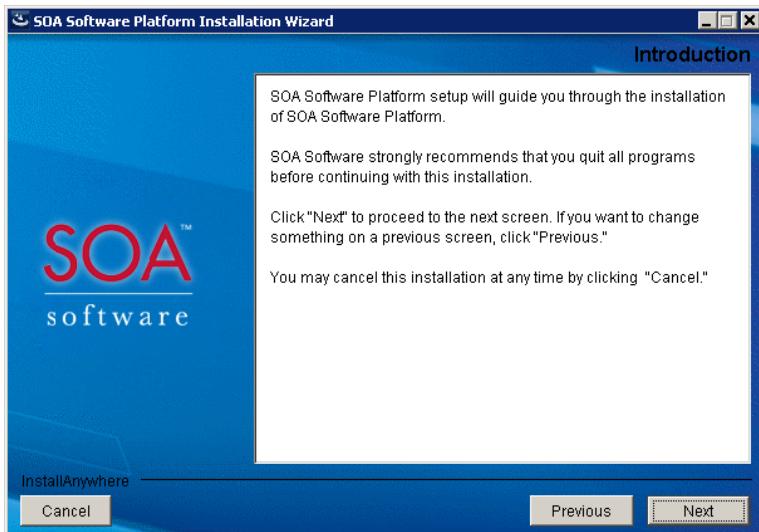


Figure 1-2: Introduction—*GUI Install*

3. Click **Next**. The "SOA Software License" screen displays.

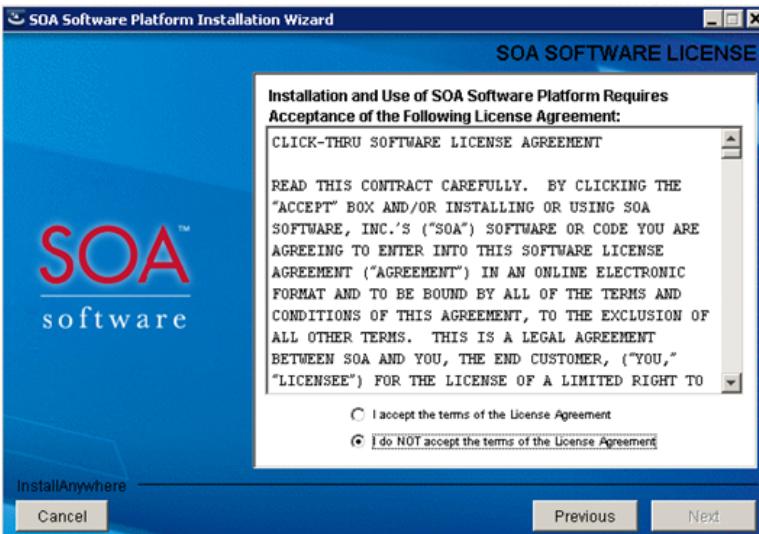


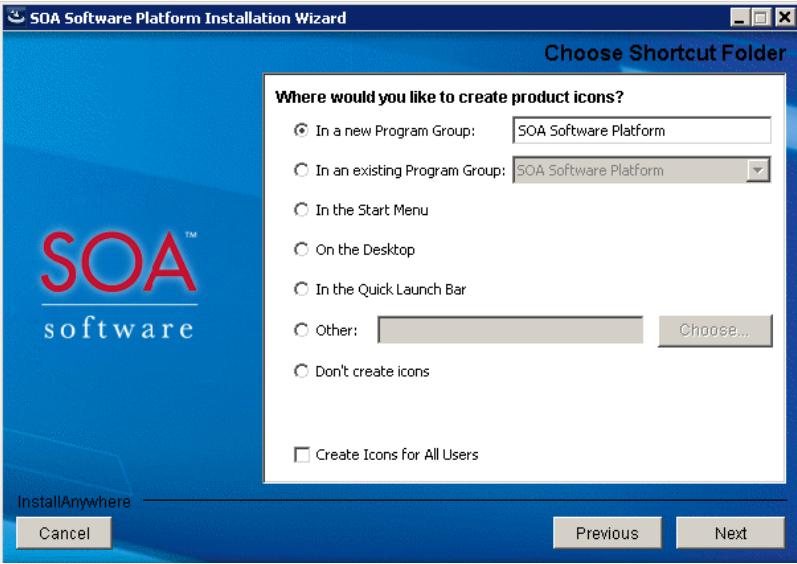
Figure 1-3: SOA Software License—*GUI Install*

4. If you agree to the license terms, click the "**I accept**" option and **Next**. The "System

To Install SOA Software Platform (GUI)

	<p>Requirements" screen displays.</p>
Figure 1-4: System Requirements—GUI Install	
5.	<p>To perform a complete installation, accept the default and click Next. The "Choose Install Folder" screen displays.</p>
Figure 1-5: Choose Install Folder—GUI Install	
6.	<p>To install in the default folder, click Next. Otherwise, click Choose, select an installation folder, and then click Next. The "Choose Shortcut Folder" screen displays.</p> <hr/> <p>Note: The "Choose Shortcut Folder" contains a number of shortcuts that you will use often when configuring and launching the SOA</p>

To Install SOA Software Platform (GUI)

	<p>Software Platform.</p>  <p>Figure 1-6: Choose Shortcut Folder—GUI Install</p>
7.	<p>Select where you would like the installer to create shortcut icons and then click Next. The "Pre-Installation Summary" screen displays.</p>  <p>Figure 1-7: Pre-Installation Summary—GUI Install</p>
8.	<p>Review your choices. If you wish to make any changes, click Previous and work your way back to the correct screen. When you are ready, click Install. The "Installing SOA Software Platform" screen displays and shows a progress indicator representing the state of the installation.</p>

To Install SOA Software Platform (GUI)

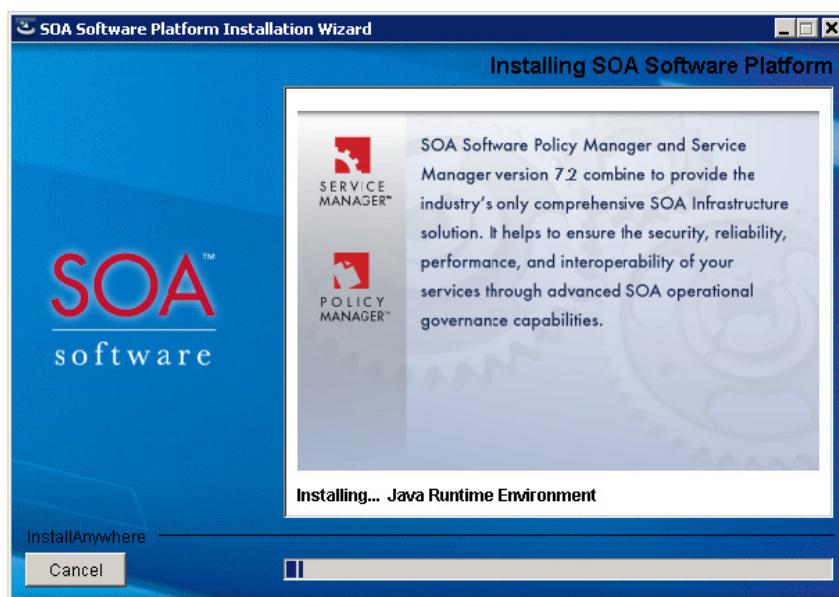


Figure 1-8: Installing—Progress Indicator

9. When the installation is complete, the "Install Complete" screen displays and the "Would you like to continue with configuration of the SOA container?" option is presented. The default selection is "No."

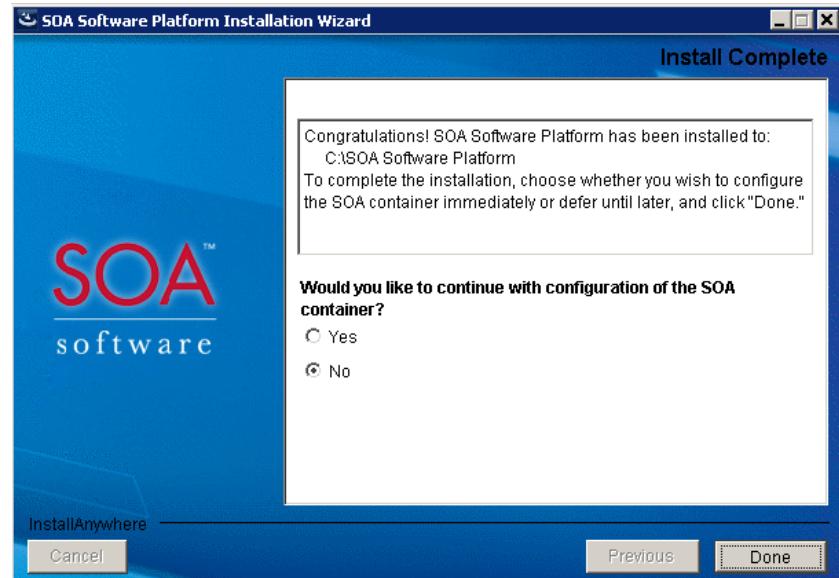


Figure 1-9: Install Complete—GUI Install

10. Select **No** and click **Done**. This completes the SOA Software Platform installation process.

Install SOA Software Platform (Console)

This section provides instructions for performing a *console* installation of the SOA Software Platform application for UNIX platforms. In order to begin installation of the SOA Software Platform, you must have administrator privileges on your computer.

To Install SOA Software Platform (Console)

Step	Procedure
1.	<p>Copy the <code>Linux-pm-7.2.xxxx-setup64.bin</code> or <code>Solaris-pm-7.2.xxxx-setup64.bin</code> file to a folder on your local machine.</p>
2.	<p>Launch:</p> <p><code>Linux-pm-7.2.xxxx-setup64.bin</code> by typing "sh <code>Linux-pm-7.1.xxxx-setup64.bin -i console</code>"</p> <p>or</p> <p><code>Solaris-pm-7.2.xxxx-setup64.bin</code> by typing "sh <code>Solaris-pm-7.2.xxxx-setup64.bin -i console</code>".</p> <p>The installation files will begin to extract. When this process is complete, the "Enter License Key" screen displays.</p> <pre>[root@INLVM02 software]# sh Linux-pm-7.2-setup64.bin -i console Preparing to install... Extracting the JRE from the installer archive... Unpacking the JRE... Extracting the installation resources from the installer archive... Configuring the installer for this system's environment... Launching installer... ===== SOA Software Platform (created with InstallAnywhere) ----- Preparing CONSOLE Mode Installation... ===== Enter License Key ----- This installation requires a License Key to continue. If you do not have, or have forgotten your license key, please contact our support team toll free within the United States at 1-866-SOA-9876 (1-866-762-9876), international customers should dial +1 310 570 4191. Enter the License Key::*</pre>
3.	<p>Enter the License Key that was supplied to you. Press Enter. The "Introduction" screen displays.</p> <hr/> <p>Note: If you do not have a license key, contact SOA Software Customer Service department. You can find the contact information at the beginning of this guide.</p> <hr/>

Figure 1-10: Enter License Key—Console Install

To Install SOA Software Platform (Console)

	<p>This installation requires a License Key to continue. If you do not have, or have forgotten your license key, please contact our support team toll free within the United States at 1-866-SOA-9876 (1-866-762-9876), international customers should dial +1 310 570 4191.</p> <p>Enter the License Key:*****</p> <p>=====</p> <p>Introduction</p> <p>-----</p> <p>SOA Software Platform setup will guide you through the installation of SOA Software Platform.</p> <p>Press <ENTER> to continue with installation. You may cancel this installation at any time by entering "quit" for any question.</p> <p>PRESS <ENTER> TO CONTINUE: █</p>
4.	<p>Press Enter. The License Agreement screen displays</p> <p>=====</p> <p>SOA SOFTWARE LICENSE</p> <p>=====</p> <p>Installation and Use of SOA Software Platform Requires Acceptance of the Following License Agreement:</p> <p>SOA SOFTWARE CLICK-THRU SOFTWARE LICENSE AGREEMENT</p> <p>READ THIS CONTRACT CAREFULLY. BY CLICKING THE 'ACCEPT' BOX AND/OR INSTALLING OR USING SOA SOFTWARE, INC.'S ('SOA') SOFTWARE OR CODE YOU ARE AGREEING TO ENTER INTO THIS SOFTWARE LICENSE AGREEMENT ('AGREEMENT') IN AN ONLINE ELECTRONIC FORMAT AND TO BE BOUND BY ALL OF THE TERMS AND CONDITIONS OF THIS AGREEMENT. THIS IS A LEGAL AGREEMENT BETWEEN SOA AND YOU, THE END USER, ('LICENSEE') FOR THE LICENSE OF A LIMITED RIGHT TO USE THE SOFTWARE, TOGETHER WITH THE ACCOMPANYING DOCUMENTATION AS SET FORTH HEREIN. SOA DOES NOT AUTHORIZE THE DOWNLOADING, INSTALLATION OR USE OF THE SOFTWARE UNTIL LICENSEE HAS AGREED TO BE BOUND BY THE TERMS OF THIS AGREEMENT BY CLICKING ON THE 'I ACCEPT THE TERMS OF THE LICENSE AGREEMENT' RADIO BUTTON BELOW.</p> <p>1. Limited Right to Use</p> <p>(a) Subject to the additional licensing terms contained in the License Agreement Addendum - Licensed Products Exhibit which accompanies the Software (the 'Licensed Product Exhibit'), SOA grants Licensee a limited, non-exclusive, non-transferable, non-sublicenseable license to install and use solely for Licensee's internal business purposes, the machine readable object code version of the software ('Software') and its accompanying documentation ('Documentation') defined in the Licensed Product Exhibit.</p> <p>PRESS <ENTER> TO CONTINUE:</p>

Figure 1-11: Introduction—Console Install

Press **Enter**. The License Agreement screen displays

Figure 1-12: License Agreement—Console Install

4. If you agree to the license terms, enter "Y" and press **Enter**. The "System Requirements" screen displays.

To Install SOA Software Platform (Console)

	<p>READ THIS CONTRACT CAREFULLY. BY ACCEPTING THIS AGREEMENT AND/OR INSTALLING OR USING ANY SOFTWARE YOU ARE AGREEING TO ENTER INTO THIS AGREEMENT IN AN ONLINE ELECTRONIC FORMAT AND TO BE BOUND BY ALL OF THE TERMS AND CONDITIONS OF THIS AGREEMENT.</p> <p>INTO THIS AGREEMENT IN AN ONLINE ELECTRONIC FORMAT AND TO BE BOUND BY ALL OF THE TERMS AND CONDITIONS OF THIS AGREEMENT.</p> <p>DO YOU ACCEPT THE TERMS OF THIS LICENSE AGREEMENT? (Y/N): Y</p> <p>-----</p> <p>System Requirements</p> <p>-----</p> <p>The following are the minimum requirements for successful installation of SOA Software Platform product.</p> <p>Any of the following Operating Systems: Red Hat Enterprise Linux 5.8, 6.2 Solaris 10, 11</p> <p>Database: Oracle 11g Microsoft SQL Server 2008 IBM DB2 Universal Database V9.7 MySQL 5.1</p> <p>Browsers: IE 8.0 and above Mozilla Firefox 10+ and above Google Chrome v17 and above</p> <p>PRESS <ENTER> TO CONTINUE: ■</p>
--	--

Figure 1-13: System Requirements—Console Install

5.	<p>Review the System Requirements, press Enter. The "Choose Install Folder" screen displays. To install in the default folder, press Y. Otherwise, enter N, specify the new installation folder and press Enter.</p> <p>-----</p> <p>Choose Install Folder</p> <p>-----</p> <p>Where Would You Like to Install?</p> <p>Default Install Folder: /opt/PMDP</p> <p>ENTER AN ABSOLUTE PATH, OR PRESS <ENTER> TO ACCEPT THE DEFAULT : /opt/PMInstalls</p> <p>INSTALL FOLDER IS: /opt/PMInstalls IS THIS CORRECT? (Y/N): Y</p>
6.	<p>Review your choices. When you are ready, press Enter. The install process begins. When the installation is complete, the command prompt displays.</p> <p>This completes the SOA Software Platform installation process.</p> <p>If you have SOA Software Platform updates to install, see "Step 2: Install SOA Software Platform Updates." If updates are not required, skip to "Step 3: Configure Standalone Container Instance."</p>

Install SOA Software Platform (Silent)

This section provides instructions for performing a *silent* installation of the SOA Software Platform 7.2 application for UNIX platforms. In order to begin installation of SOA Software Platform, you must have administrator privileges on your computer.

A silent installation is an automatic process that installs the SOA Software Platform application from start to finish without any user interaction. The silent installation properties file (`installer.properties`) must be configured prior to running the silent install. Configurable options include specifying a target installation directory, install set, and input options to be executed at the end of the installation. After configuring the property file, the SOA Software Platform application can be deployed onto multiple computers in a scripted, non-interactive manner.

To generate an `installer.properties` file, you must first perform a standard SOA Software Platform installation using your platform-specific "setup" file. After the SOA Software Platform installation is completion, a platform-specific `installer.properties` file will be saved in the directory where you launched the SOA Software Platform "setup" file. This file is configured with the setting specified in the "SOA Software Platform Installation Wizard" and can be customized based on your requirements.

Note: The silent installation method is not supported for the Windows platform.

To Configure Silent Install Properties File (`installer.properties`)

Step	Procedure
1.	<p>Prior to executing a SOA Software Platform silent installation, the "installer.properties" file must be configured to meet your requirements. The initial "installer.properties" file that was generated as a result of you installing SOA Software Platform using the "SOA Software Platform Installation Wizard" setup file will be populated with the default settings used for your initial installation.</p> <pre> Thu Jan 16 12:09:40 IST 2014 # Replay feature output # # ----- # This file was built by the Replay feature of InstallAnywhere. # It contains variables that were set by Panels, Consoles or Custom # Code.# # # Enter License Key # # ----- # This option displays the license key that was specified during # the initial application installation. Note that the # "INDEX_OF_MATCHING_PASSWORD" option setting should always be "2." # USER_SUPPLIED_PASSWORD= INDEX_OF_MATCHING_PASSWORD=2 # </pre>

To Configure Silent Install Properties File (`installer.properties`)

	<pre> # Choose Install Folder # ----- # This option is used to specify the target installation # directory path. # USER_INSTALL_DIR=C:\\Program Files\\SOA SOFTWARE # # # Choose Shortcut Folder # ----- # This option is used to specify the path to be used for the # the "Windows" Program Group shortcut. # USER_SHORTCUTS=C:\\Documents and Settings\\Administrator\\Start Menu\\Programs\\ # # # Install Complete # ----- # The USER_INPUT_RESULT_8 option controls whether the "Configure # Container Instance Wizard" launches automatically after the # silent installation is complete. # # #Install Complete #----- USER_INPUT_RESULT_8=1 USER_INPUT_RESULT_13=0 </pre>
2.	<p>After you perform an initial installation of the SOA Software Platform, an <code>installer.properties</code> file is stored in the directory where the application setup file is stored. Save a copy of this base file. It will serve as a template for each custom configuration.</p> <p>The next step is to customize the <code>installer.properties</code> file (one instance per application type you will be launching a silent install for).</p> <ol style="list-style-type: none"> 1) Review and update the base silent install parameters (Enter License Key, Choose Install Folder, Chose Shortcut Folder, and Install Complete). 2) Add the "<code>INSTALLER_UI</code>" parameter. This parameter configures the installation method as "silent." <p style="text-align: center;"><code>INSTALLER_UI=silent</code></p>
3.	<p>After you have completed your customizations, save the <code>installer.properties</code> file. To run the silent installation, refer to the "To Perform a Silent Install" procedure.</p>

To Perform a Silent Install

Step	Procedure
1.	Copy the setup file for your platform to a folder on your local machine:

To Perform a Silent Install

	<ul style="list-style-type: none"> • Linux-pm-7.2.xxxx-setup64.bin • Solaris-pm-7.2.xxxx-setup64.bin <hr/> <p>Note: The silent installation method is not supported for the Windows platform.</p> <hr/>
2.	<p>To launch the SOA Software Platform silent installer, type the following:</p> <p>UNIX:</p> <pre>./ Linux-pm-7.2.xxxx-setup64.bin -f /export/home/username/<setup directory location>\installer.properties</pre> <p>or</p> <pre>./ Solaris-pm-7.2.xxxx-setup64.bin -f /export/home/username/<setup directory location>\installer.properties</pre> <p><i>Note: The INSTALLER_UI switch in the installer.properties file must be set to "silent" (INSTALLER_UI=silent) prior to launching the installer.properties setup.</i></p> <p>When the installation process is complete, the system returns to the operating system prompt. An install log (<installation name>.log) is stored in the \sm70 directory.</p>
3.	<p>This completes the SOA Software Platform installation process.</p> <p>If you have SOA Software Platform updates to install, see "Step 2: Install SOA Software Platform Updates." If updates are not required, skip to "Step 3: Configure Standalone Container Instance."</p>

STEP 2: INSTALL SOA SOFTWARE PLATFORM UPDATES

SOA Software periodically issues updates for the SOA Software Platform. Update files can be downloaded from the SOA Software Customer Support site. Refer to www.support.soa.com in the Downloads > Policy Manager > PM72 > Updates section.

SOA Software Platform update files must be copied to the SOA Software Platform Release Directory (c:\sm70). Each update file must be extracted in version number order (earliest version first) prior to configuring a container instance.

To Install SOA Software Platform Updates

Step	Procedure
1.	Log onto the SOA Software Customer Support site (www.support.soa.com) and download the SOA Software Platform updates (Downloads > Policy Manager > PM72 > Updates).

To Install SOA Software Platform Updates

	Copy the updates to the SOA Software Platform 7.2 Release Directory (\sm70).
2.	Extract the update files in version number order (earliest version first) to the SOA Software Platform 7.2 Release Directory (\sm70). When the "Confirm file replace" dialog displays, click Yes to All . The automated zip file then updates a series of files in the \bin, \config, \docs, \instances, and \lib folders in the SOA Software Platform Release Directory (\sm70).
3.	After applying updates, delete the /sm70/instances/configurator/cache directory if it exists.
4.	After the automated zip file completes its processing, the next step is to configure a Container Instance. Refer to the "Configuring Standalone Container Instance" section.
5.	<p>NOTE:</p> <ul style="list-style-type: none"> • New Installation: If this is a <i>new</i> installation and you have not yet created an SOA Container, skip directly to "Step 3: Configure Standalone Container Instance." • Existing Installation: If this is an <i>existing</i> installation and you have applied updates, refer to "Chapter 2: Installing Updates to Existing SOA Software Platform Installation," complete the procedure, and then continue to "Step 4: Launch SOA Software Administration Console" in this chapter and complete the remaining installation and configuration steps.

STEP 3: CONFIGURE STANDALONE CONTAINER INSTANCE

This section provides instructions for using the "Configure Container Instance Wizard" to configure a Standalone Container Instance. The container configuration process creates a basic container configuration with a minimum set of OSGI bundles, sets the SOA Software Platform Default properties, and sets the SOA Software Platform Default Repository. Select one of the following configuration methods:

- Configure Standalone Container Instance (GUI)
- Configure Standalone Container Instance (Silent)

Configure Standalone Container Instance (GUI)

The following procedure uses the "Configure Container Instance Wizard" to create a Standalone Container Instance.

To Configure a Container Instance—Standalone Deployment

Step	Procedure
1.	Navigate to the SOA Software Platform release directory \sm70\bin and enter: startup.bat configurator (Windows) startup.sh configurator (UNIX)

To Configure a Container Instance—Standalone Deployment

The "Welcome to Configure Container Instance Wizard" screen displays. Review the information and click **Next** to continue.

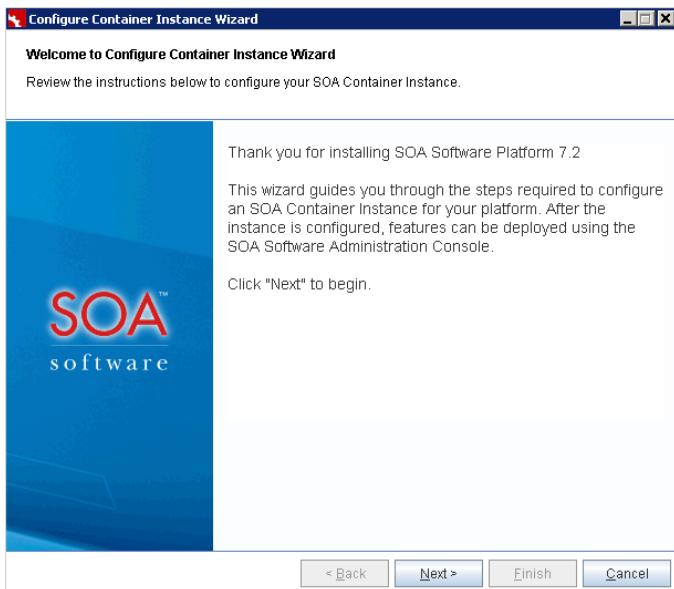


Figure 1-15: Welcome to Configure Container Instance—Standalone Deployment

2. The "Instance Name" screen displays. Here you specify the name of the container instance and container key. The instance name should be unique and easily identifiable (e.g., Atmosphere). The instance name will display in the browser tab of the SOA Software Administration Console. You can enter a custom container key. If you do not enter a container key, one will be generated automatically by the system. Enter your container instance name and click **Next** to continue.

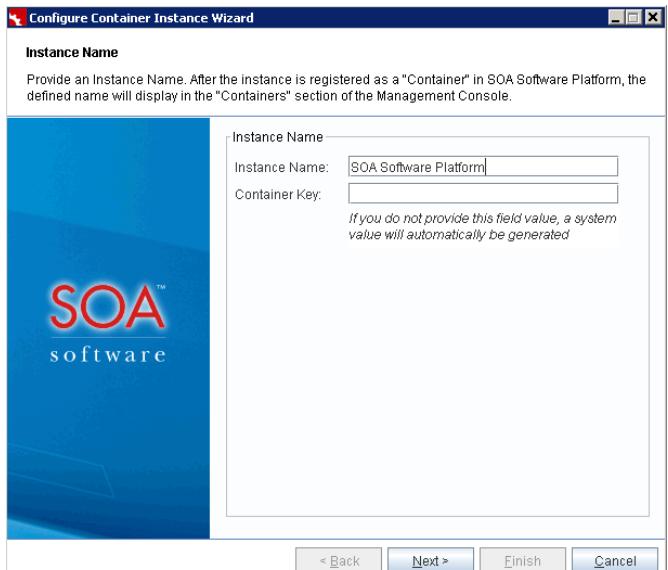


Figure 1-16: Instance Name—Standalone Deployment

To Configure a Container Instance—Standalone Deployment

<p>3.</p> <p>The "Default Admin User" screen displays. Define the "Username" and "Password" credentials of the administrator that will be using the SOA Software Administration Console.</p> <p>The "Password" field includes a default password that can be used to log into the SOA Software Administration Console. The "Hide Password" checkbox allows you to display the password as encrypted or unencrypted. To view the default password, uncheck the "Hide Password" checkbox. Use the default password to log into the SOA Software Administration Console, or enter a new password. After entering the credential information, click Next to continue.</p>	
<p>4.</p> <p>The "Instance Configuration Options" screen displays. Here you will select the container deployment option.</p>	

Figure 1-17: Default Admin User—Standalone Deployment

To Configure a Container Instance—Standalone Deployment

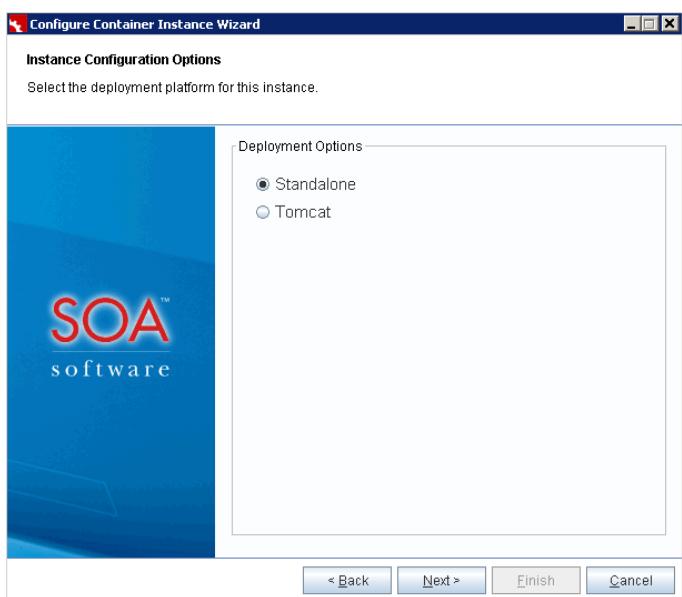


Figure 1-18: Instance Configuration Options—Standalone Deployment

5. Select "Standalone." The "Default HTTP Listener" screen displays. Set the default HTTP Port and Host IP Address for this instance. This listener configuration will be used as the SOA Software Administration Console address.

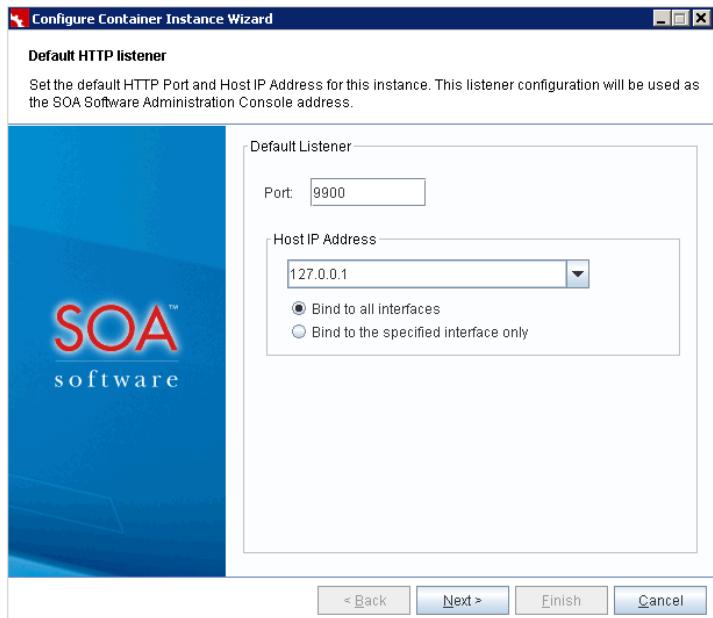


Figure 1-19: Default HTTP Listener—Standalone Deployment

Default HTTP Listener

- Port—Represents the default HTTP Port.

Host IP Address:

To Configure a Container Instance—Standalone Deployment

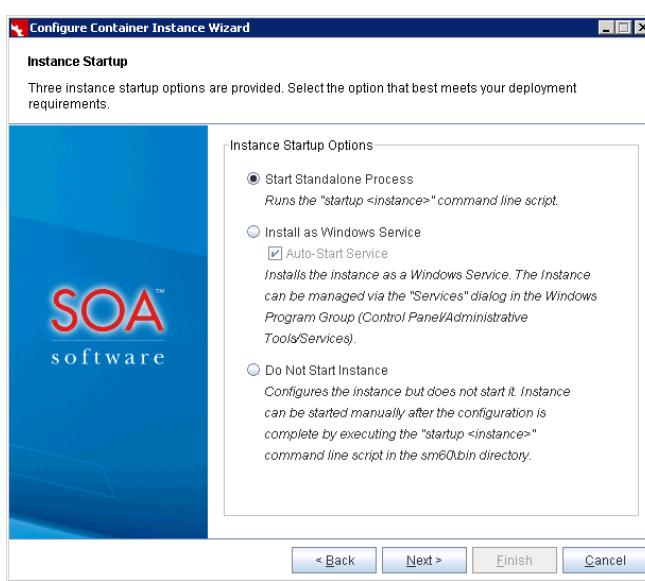
	<p>Select the Host IP Address from the drop-down list box and an interface binding option:</p> <ul style="list-style-type: none"> Bind to all interfaces—If you select this option, the listener binds to the 0.0.0.0 address. "localhost" or any other valid IP for the machine can be used to connect to the client/browser. Bind to a specific interface—If you select this option, the selected host name is used to connect to the client/browser. <p>The Default HTTP Listener information is used to compose the SOA Software Administration Console URL as follows:</p> <p><code>http://<hostname>:<port>/admin/</code></p> <p><i>Note: The trailing forward slash is required in the Admin Console URL (i.e., admin/).</i></p>
6.	<p>Click Next to continue. The "Instance Startup" screen displays. Three instance startup options are provided.</p> <ul style="list-style-type: none"> Start Standalone Process—Runs the "startup <instance>" command line script located in the sm70\bin directory. Install as Windows Service—Installs the instance as a Windows Service. The Instance can be managed via the "Services" dialog in the Windows Program Group (Control Panel/Administrative Tools/Services). Do Not Start Instance—Configures the instance but does not start it. Instance can be started manually after the configuration is complete by executing the "startup <instance>" command line script in the sm60\bin directory. 

Figure 1-20: Instance Setup—Standalone Deployment

Click the radio button of the startup option you would like to use for the current container instance, and click **Next** to continue.

Note: The "Instance Startup" screen does not display on UNIX systems because

To Configure a Container Instance—Standalone Deployment

	a manual startup is required. Container Startup instructions are provided later in this procedure
7.	If you select an auto-start option, the SOA Software Administration Console can be launched automatically after the container configuration is complete. This option is enabled by default. Verify whether you would like auto-start enabled or disabled, then click Next to continue.  The screenshot shows the 'Configure Container Instance Wizard' window. The title bar says 'Configure Container Instance Wizard'. The main area has a blue background with the 'SOA software' logo. At the top, it says 'Launch Admin Console' and provides a brief description: 'If an auto-start instance option was selected, the SOA Software Administration Console can be launched automatically after confirming your configuration.' On the right, there is a section titled 'Admin Console Startup' with a checked checkbox labeled 'Launch Admin Console'. At the bottom, there are four buttons: '< Back', 'Next >', 'Finish', and 'Cancel'.
8.	The "Summary" screen displays. Review the summary information. To confirm, click Finish .

Figure 1-21: Launch Admin Console—Standalone Deployment

To Configure a Container Instance—Standalone Deployment

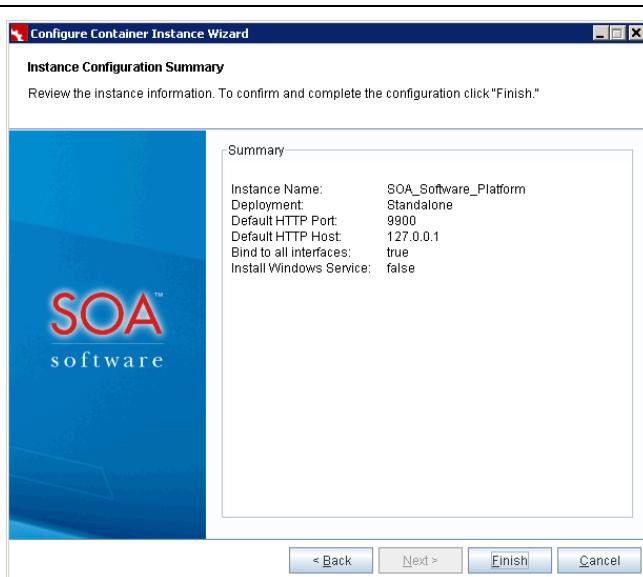


Figure 1-22: Instance Configuration Summary—Standalone Deployment

This completes the container configuration process.

8.	<p>If you selected the "Do Not Start Instance" option, the following methods can be used to start a container instance:</p> <p><u>Start Process in Windows</u></p> <p>Start—Navigate to sm70\bin and type startup <instance name></p> <p><u>Start Process as Windows Service</u></p> <p>Launch Program Group (Settings /Control Panel/Administrative Tools/Services)</p> <p>Select SOA Software Container Instance - Note that the instance name is displayed as the Container Key.</p> <p><u>Start Process in UNIX</u></p> <p>Start—Navigate to sm70/bin and type startup.sh <instance name></p> <p><u>Start Process in UNIX (Background)</u></p> <p>Start—Navigate to sm70/bin and type startup.sh <instance name> -bg</p>
9.	<p>Perform the following prerequisite steps before launching the SOA Software Administration Console:</p> <ul style="list-style-type: none"> • <u>Deploy Database Driver</u>—Before performing the database configuration in the SOA Software Administration Console, verify that a database driver for the database used with the current SOA Container configuration is deployed to the c:\sm70\instances\<container instance>\deploy folder. If a database driver is not deployed, copy the database driver to the \deploy directory. Refer to "Appendix B: Database Drivers" for a list of supported database drivers. • <u>Clear Browser Cache</u>—Before launching the SOA Software Administration Console, clear the browser cache. This is necessary to ensure that user interface changes

To Configure a Container Instance—Standalone Deployment

	<p>included in the SOA Software Platform update(s) display properly.</p> <ul style="list-style-type: none"> • <u>Manually Installing Feature Schemas</u>—If you have a requirement to manually install the feature schemas, contact SOA Software Customer Support prior to beginning this installation to obtain a series of schema installation scripts and additional instructions.
10.	If the "Launch Admin Console" checkbox is selected on the "Launch Admin Console" screen, the SOA Software Administration Console will launch automatically. If you selected "Do Not Start Instance," refer to the "Step 4: Launch SOA Software Administration Console" section for instructions.

Configure Standalone Container Instance (Silent)

This section provides instructions on how to configure an automated configuration properties file that is used to create a new SOA Software Platform Container Instance.

To Configure a Container Instance (Silent Configuration)

Step	Procedure
1.	<p>The "Configure Container Instance Wizard" can be set up to run in an automated mode (i.e., silent). This is done by defining a properties file and pre-defining a set of property values to be used by the "Configure Container Instance Wizard" to automatically configure a Container instance.</p> <ol style="list-style-type: none"> 1. Define a properties file (e.g., myprops.properties) 2. Add the following default content: <pre>container.instance.name=instancename credential.username = administrator credential.password = password default.host=localhost default.port=9900</pre> <p>Base Properties</p> <p>The following properties are used for Standalone Deployments.</p> <p>container.instance.name—Name of the Container. credential.username—Username for logging into the SOA Software Administration Console. credential.password—Password for logging into the SOA Software Administration Console. container.key—Specify custom Container key (optional). If not specified container key is auto-generated. default.host—Host for the Container Instance. default.port—Port for the Container Instance.</p> <p>Running Silent Configuration</p> <p>The "Configure Container Instance Wizard (Silent Configuration)" properties file for a</p>

To Configure a Container Instance (Silent Configuration)

	<p>Standalone configuration accepts the following system properties which together are used to perform a silent configuration:</p> <ol style="list-style-type: none"> 1. silent (If True, silent configuration will be performed) 2. properties (location on filesystem of property file to be used for configuration) <p>Windows:</p> <pre>\sm70\bin>startup.bat configurator "-Dsilent=true" "-Dproperties=C:/<property file directory location>/myprops.properties"</pre> <p>UNIX</p> <pre>\sm70\bin>startup.sh configurator -Dsilent=true -Dproperties=/export/home/username/<property file directory location>\myprops.properties</pre>
2.	<p>Perform the following prerequisite steps before launching the SOA Software Administration Console:</p> <ul style="list-style-type: none"> • Deploy Database Driver—Before performing the database configuration in the SOA Software Administration Console, verify that a database driver for the database used with the current SOA Container configuration is deployed to the c:\sm70\instances\<container instance>\deploy folder. If a database driver is not deployed, copy the database driver to the \deploy directory. Refer to "Appendix B: Database Drivers" for a list of supported database drivers. • Clear Browser Cache—Before launching the SOA Software Administration Console, clear the browser cache. This is necessary to ensure that user interface changes included in the SOA Software Platform update(s) display properly. • Manually Installing Policy Manager Schemas—If you have a requirement to manually install the SOA Software Platform schemas, contact SOA Software Customer Support prior to beginning this installation to obtain a series of schema installation scripts and additional instructions.
3.	<p>Start the container instance. The following methods can be used to start a container instance.</p> <p><u>Start / Stop Process in Windows</u></p> <p>Start—Navigate to sm70\bin and type startup <instance name></p> <p><u>Start Process as Windows Service</u></p> <p>Launch Program Group (Settings /Control Panel/Administrative Tools/Services)</p> <p>Select SOA Software Container Instance - Note that the instance name is displayed as the Container Key.</p> <p><u>Start / Stop Process in UNIX</u></p> <p>Start—Navigate to sm70/bin and type startup.sh <instance name></p> <p><u>Start / Stop Process in UNIX (Background)</u></p> <p>Start—Navigate to sm70/bin and type startup.sh <instance name></p>

To Configure a Container Instance (Silent Configuration)

	<p>—Navigate to sm70/bin and type shutdown.sh <i>Refer to Appendix A: Start / Stop / Restart Container Instance for a complete list of container start/stop instructions.</i></p>
4.	The next step is to launch the SOA Software Administration Console. Refer to the "Step 4: Launch SOA Software Administration Console" section.

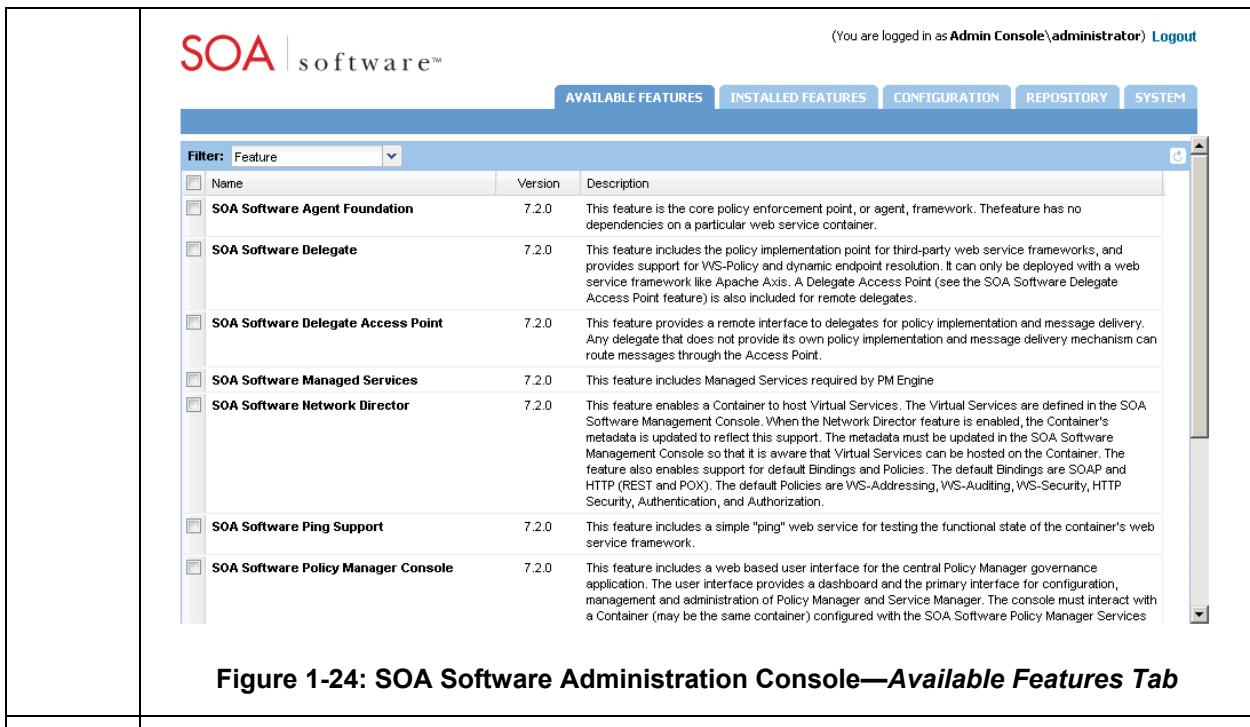
STEP 4: LAUNCH SOA SOFTWARE ADMINISTRATION CONSOLE

To Launch the SOA Software Administration Console

Step	Procedure
1.	<p>After successfully starting the container instance, deploying the database driver, and clearing the browser cache, launch the "SOA Software Administration Console" for the updated SOA Container Instance:</p> <p>Enter: <a href="http://<hostname>:<port>/admin">http://<hostname>:<port>/admin</p> 
2.	Select the "Admin Console" domain, enter the "Username" and "Password," and click Login . The SOA Software Administration Console launches and displays the "Available Features" tab.

Figure 1-23: SOA Software Administration Console—Login

To Launch the SOA Software Administration Console



The screenshot shows the SOA Software Administration Console interface. At the top, there is a header bar with the SOA software logo and navigation tabs: AVAILABLE FEATURES, INSTALLED FEATURES, CONFIGURATION, REPOSITORY, and SYSTEM. The AVAILABLE FEATURES tab is selected. Below the header is a search/filter bar with a dropdown set to 'Feature'. A table lists various SOA Software features with their names, versions, and brief descriptions:

Name	Version	Description
SOA Software Agent Foundation	7.2.0	This feature is the core policy enforcement point, or agent, framework. The feature has no dependencies on a particular web service container.
SOA Software Delegate	7.2.0	This feature includes the policy implementation point for third-party web service frameworks, and provides support for WS-Policy and dynamic endpoint resolution. It can only be deployed with a web service framework like Apache Axis. A Delegate Access Point (see the SOA Software Delegate Access Point feature) is also included for remote delegates.
SOA Software Delegate Access Point	7.2.0	This feature provides a remote interface to delegates for policy implementation and message delivery. Any delegate that does not provide its own policy implementation and message delivery mechanism can route messages through the Access Point.
SOA Software Managed Services	7.2.0	This feature includes Managed Services required by PM Engine
SOA Software Network Director	7.2.0	This feature enables a Container to host Virtual Services. The Virtual Services are defined in the SOA Software Management Console. When the Network Director feature is enabled, the Container's metadata is updated to reflect this support. The metadata must be updated in the SOA Software Management Console so that it is aware that Virtual Services can be hosted on the Container. The feature also enables support for default Bindings and Policies. The default Bindings are SOAP and HTTP (REST and POX). The default Policies are WS-Addressing, WS-Auditing, WS-Security, HTTP Security, Authentication, and Authorization.
SOA Software Ping Support	7.2.0	This feature includes a simple "ping" web service for testing the functional state of the container's web service framework.
SOA Software Policy Manager Console	7.2.0	This feature includes a web based user interface for the central Policy Manager governance application. The user interface provides a dashboard and the primary interface for configuration, management and administration of Policy Manager and Service Manager. The console must interact with a Container (may be the same container) configured with the SOA Software Policy Manager Services

Figure 1-24: SOA Software Administration Console—Available Features Tab

- | | |
|----|---|
| 3. | The next step is to install SOA Software Platform features. Refer to the "Step 5: Install Policy Manager Features" section. |
|----|---|

STEP 5: SELECT KEYSTORE APPROACH (EXTERNAL OR POLICY MANAGER DEFAULT)

Policy Manager provides an *SOA Software External Keystore Feature* that allows you to enable a Hardware Security Module (HSM) security provider as your cryptography solution for storing and managing Policy Manager PKI keys and certificates. After the feature is installed, all key management tasks performed using the Manage PKI Keys Wizard for each identity (service, organization, container, or user) will be stored in the designated external keystore.

If you would like to use your own external keystore instead of the Policy Manager default keystore, you *must* install the *SOA Software External Keystore Feature* **before** you install the Policy Manager *SOA Software Policy Manager Console* and *SOA Software Policy Manager Services* features and configure a series of external keystore options (Provider Name, Key Store Type, Keystore Location, and Keystore Password) to integrate your HSM with Policy Manager.

Refer to Using the *SOA Software External Keystore Feature* on the SOA Software Documentation Repository for complete instructions:

http://docs.soa.com/ag/key_management/using_external_keystore.htm

STEP 6: INSTALL POLICY MANAGER FEATURES

This section provides a walkthrough of the SOA Software Administration Console "Install Feature" function. The following procedure will focus on installing the two "Policy Manager" features (SOA Software Policy Manager Console, and SOA Software Policy Manager Web Services).

Note: The installation process is the same for all features. Each feature should be installed in a separate container instance except for the SOA Software Policy Manager Console, and SOA Software Policy Manager Web Services features. These two features can be installed in separate container instances if there are special requirements (e.g., load distribution in a cluster, etc.).

To Install Policy Manager Features

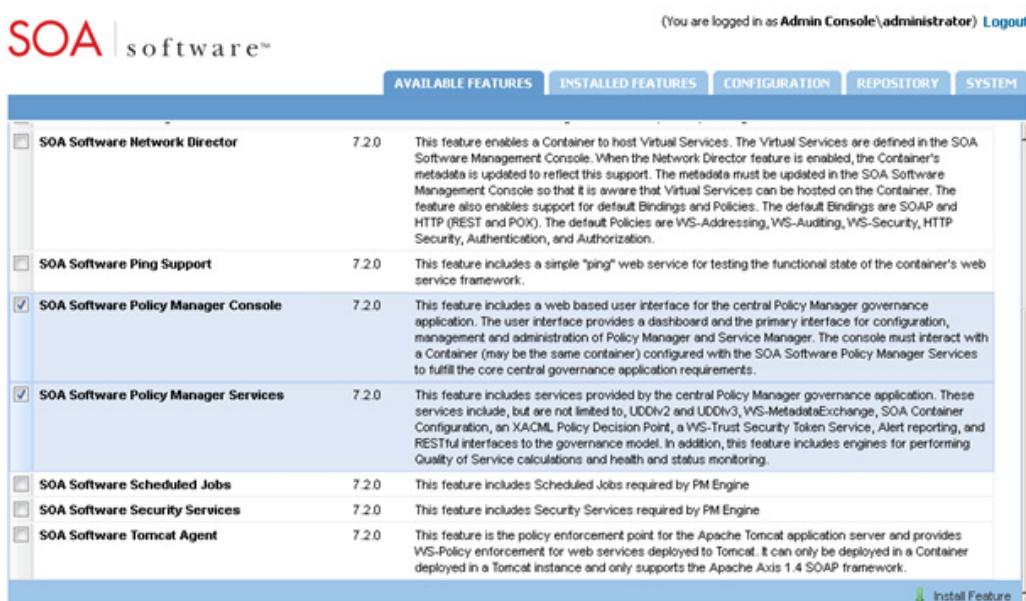
Step	Procedure
1.	<p>On the SOA Software Administration Console, click the "Available Features" tab. A list of available features displays.</p>  <p>The screenshot shows the SOA Software Administration Console interface. At the top, it says "(You are logged in as Admin Console\administrator) Logout". Below that is the SOA software logo. The main area has tabs: AVAILABLE FEATURES (which is selected), INSTALLED FEATURES, CONFIGURATION, REPOSITORY, and SYSTEM. Under the AVAILABLE FEATURES tab, there is a list of features with their descriptions and versions. The 'SOA Software Policy Manager Console' and 'SOA Software Policy Manager Services' features are checked. At the bottom right of the list, there is a blue button labeled 'Install Feature'.</p>
2.	<p>To select the "SOA Software Policy Manager Console" and "SOA Software Policy Manager Web Services" features, click the checkbox next to the feature line item. After clicking the checkbox, the "Install Feature" button displays in focus.</p>

Figure 1-25: Policy Manager Console/Web Services Installation—Available Features Tab

To Install Policy Manager Features

3. To begin installing the selected features, click **Install Feature**. The feature installation wizard goes through several prerequisite steps to verify the installation. In the "Resolve" phase, the system determines all the bundle and package dependencies for the selected feature.

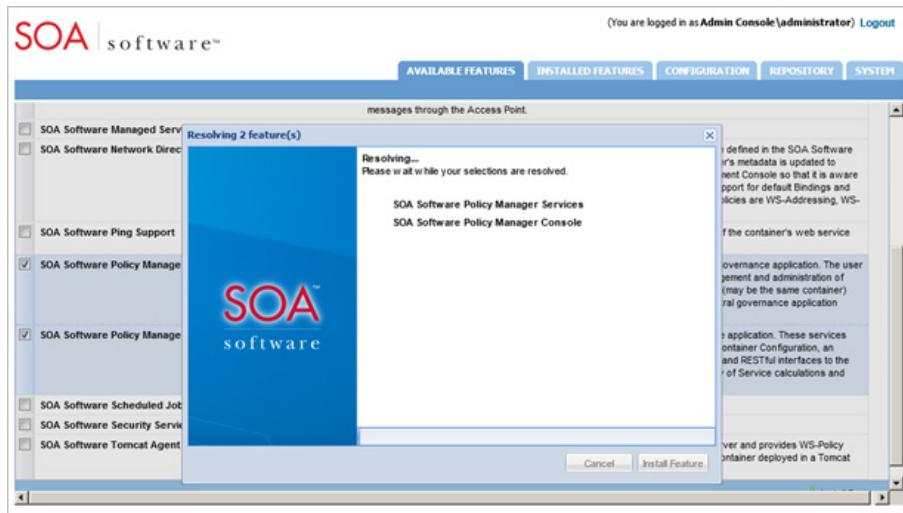


Figure 1-26: Policy Manager Console/Web Services Installation —*Install Feature – Resolve Phase*

4. After the "Resolve" phase is complete, a "Feature Resolution Report" is presented that includes a list of dependencies for the selected feature.

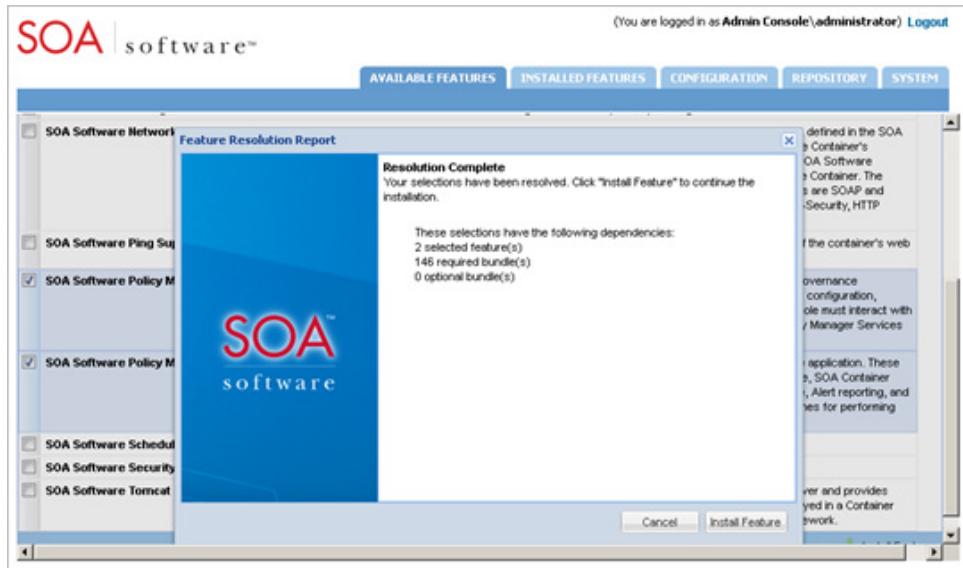


Figure 1-27: Policy Manager Console/Web Services Installation—*Install Feature – Feature Resolution Report*

5. To begin installing the feature click "Install Feature." The "Installing..." status displays along with a progress indicator.

To Install Policy Manager Features

6.	<p>When the installation process is completed, the "Installation Complete" screen displays and the feature(s) being installed are removed from the listing under the "Available Features" tab and transitioned to the "Installed Features" tab.</p>
7.	<p>After the installation is complete, the next step is to configure the feature. This is done by executing a series of one-time and/or repeatable tasks. Refer to "Step 6: Configure the Policy Manager Features" for information.</p>

STEP 7: CONFIGURE POLICY MANAGER FEATURES

This section provides a walkthrough of the SOA Software Administration Console "Tasks" that apply to the "SOA Software Policy Manager Console" and "SOA Software Policy Manager Web Services" features.

Configure Policy Manager Console/Web Services

After installing the "SOA Software Policy Manager Console" and "SOA Software Policy Manager Web Services" features via the "Available Features" tab on the SOA Software Administration Console a series of configuration tasks must be applied to the feature. Configuration tasks can be executed using two tracks.

- The first track can be started by clicking the "Configure" button on the "Installation Complete" screen at the end of the feature installation process.
- The second track allows you to resume the configuration at a later time by clicking "Cancel" on the "Installation Complete" screen and executing the "Complete Configuration" button in the "Pending Installation Tasks" section via the "Installed Features" tab.

Multiple configuration tasks are executed in a single stream using a wizard application. After the configuration process is complete, tasks that are "repeatable" are available in the "Configuration Actions" section of the "Configuration" tab. Tasks can be re-executed as needed.

Note: This chapter assumes a starting point of having launched the configuration wizard using either track. Tasks procedures are listed in sequential order.

Configure SOA Software Policy Manager Console/SOA Software Policy Manager Web Services Features

Step	Procedure
1.	<p>Select one of the following configuration tracks, to begin the configuration process for the "SOA Software Policy Manager Console/SOA Software Policy Manager Web Services."</p> <ul style="list-style-type: none"> • <i>Available Features Tab:</i> Click "Configure" on the "Installation Complete" screen of the feature installation wizard. <p>OR</p> <ul style="list-style-type: none"> • <i>Installed Features Tab:</i> Click "Complete Configuration" in the "Pending Installation Tasks" section. <p>The first page of the "Manage PKI Keys Wizard" displays. This is the starting point for beginning the SOA Software Policy Manager Console/SOA Software Policy Manager Web Services configuration.</p> <p>The following sections provide a walkthrough of each task in the configuration wizard for the SOA Software Policy Manager Console and SOA Software Policy Manager Web</p>

Configure SOA Software Policy Manager Console/SOA Software Policy Manager Web Services Features

	Service features.
--	-------------------

Configure PKI Keys (Policy Manager Console/Web Services)

This section provides instructions on how to configure keys for the current feature set.

To Configure PKI Keys (Policy Manager Console/Web Services)

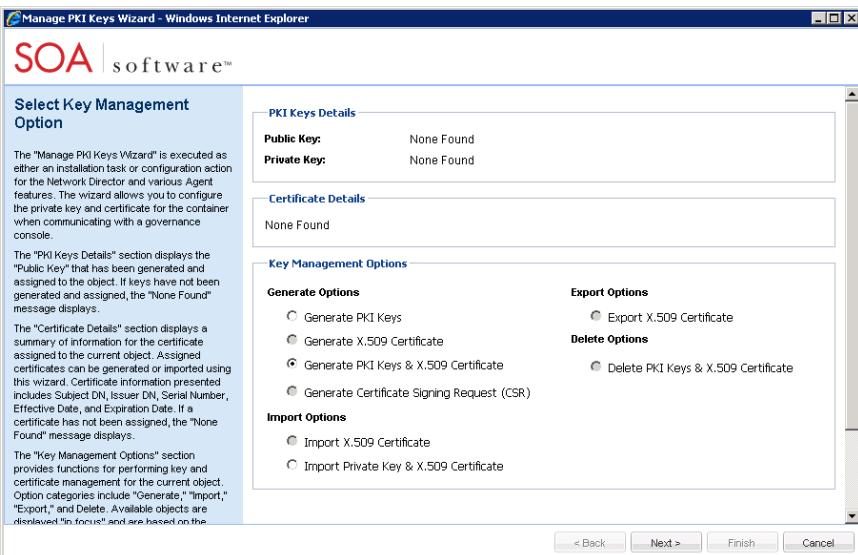
Step	Procedure
1.	<p>The "Manage PKI Keys Wizard" wizard allows you to configure the private key and certificate for the container when communicating with a governance console.</p> 

Figure 1-30: Manage PKI Keys Wizard (Select Key Management Option)—Policy Manager Console/Web Services

The screen is organized as follows:

- **PKI Keys Details**—Displays the "Public Key" that has been generated and assigned to the object. If keys have not been generated and assigned, the "None Found" message displays.
- **Certificate Details**—Displays a summary of information for the certificate assigned to the current object. Assigned certificates can be generated or imported using this wizard. Certificate information presented includes Subject DN, Issuer DN, Serial Number, Effective Date, and Expiration Date. If a certificate has not been assigned, the "None Found" message displays.
- **Key Management Options**—Provides functions for performing key and certificate management for the current object. Option categories include "Generate," "Import," "Export," and "Delete." Available objects are displayed "in focus" and are

To Configure PKI Keys (Policy Manager Console/Web Services)

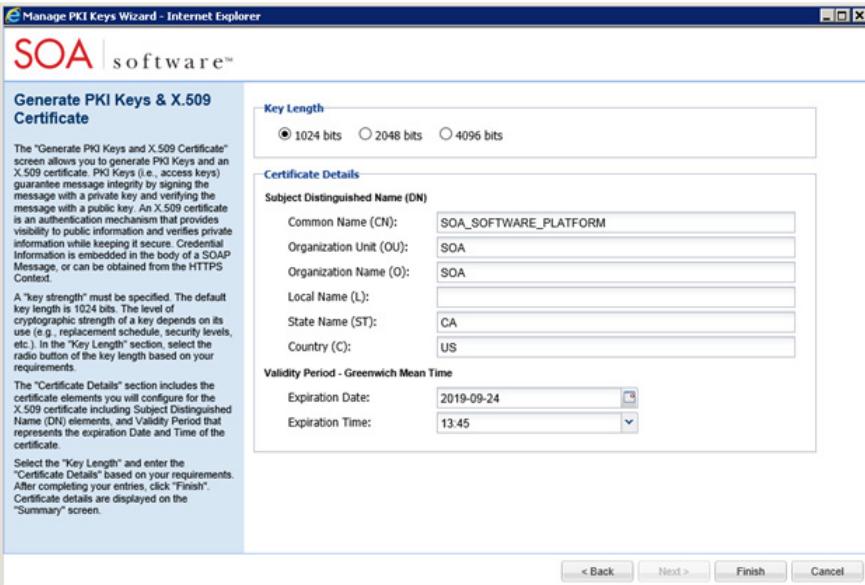
	based on the object's configuration "state."
2.	<p>Select a "Key Management Option" and click Next to continue. For this walkthrough we will use the default key option "Generate PKI Keys & X.509 Certificate." The "Generate PKI Keys & X.509 Certificate" screen displays.</p> 

Figure 1-31: Manage PKI Keys Wizard (Generate PKI Keys & X.509 Certificate)—Policy Manager Console/Web Services

The "Generate PKI Keys and X.509 Certificate" screen allows you to generate PKI Keys and an X.509 certificate. PKI Keys (i.e., access keys) guarantee message integrity by signing the message with a private key and verifying the message with a public key. An X.509 certificate is an authentication mechanism that provides visibility to public information and verifies private information while keeping it secure. Credential Information is embedded in the body of a SOAP Message, or can be obtained from the HTTPS Context.

The screen is organized as follows:

- Key Length—A "key strength" must be specified. The default key length is 1024 bits. The level of cryptographic strength of a key depends on its use (e.g., replacement schedule, security levels, etc.). In the "Key Length" section, select the radio button of the key length based on your requirements.
- Certificate Details—Includes the certificate elements you will configure for the X.509 certificate including Subject Distinguished Name (DN) elements, and Validity Period that represents the expiration Date and Time of the certificate.

Select the radio button of the "Key Length" and enter the "Certificate Details" based on your requirements. After completing your entries, click **Finish**. Certificate details are displayed on the "Summary" screen.

To Configure PKI Keys (Policy Manager Console/Web Services)

	<p>The screenshot shows the "Manage PKI Keys Wizard - Internet Explorer" window. The title bar says "Manage PKI Keys Wizard - Internet Explorer". The main area has a "SOA software™" logo. On the left, there's a "Summary" section with a message: "You have successfully completed the 'Manage PKI Keys Wizard.' Review the summary information. To exit this wizard, click 'Close.'" On the right, there are two sections: "PKI Keys Details" and "Certificate Details". Under "PKI Keys Details", there are fields for "Public Key" and "Private Key". The "Public Key" field contains a long string of characters. Under "Certificate Details", there are fields for "Subject DN", "Issuer DN", "Serial Number", "Effective Date/Time", and "Expiration Date/Time". The "Subject DN" is "CN=SOA_SOFTWARE_PLATFORM, OU=SOA, O=SOA, ST=CA, C=US". The "Issuer DN" is "CN=SOA_SOFTWARE_PLATFORM, OU=SOA, O=SOA, ST=CA, C=US". The "Serial Number" is "1769954468980205632". The "Effective Date/Time" is "Tuesday, September 23, 2014 8:47:31 PM GMT". The "Expiration Date/Time" is "Tuesday, September 24, 2019 1:45:00 PM GMT". At the bottom of the window are buttons for "< Back", "Next >", "Go To Next Task", and "Close".</p>
3.	Click Go To Next Task . The "Select Database Options" screen displays. A walkthrough of this configuration task is outlined in the "Configure Database Options" section.

Configure Database Options (Policy Manager Console/Web Services)

The "Select Database Option" screen provides options for selecting the database to be used with the current SOA Software Container configuration.

Note: If database and schemas have been manually installed, select the "Use existing database" option on the "Configure Database Options Wizard."

When the "Manage Schemas Wizard" displays the schemas that were manually installed will be displayed in the "Installed Schemas" section. You can click **Finish** to complete the configuration.

- The "Create new database" option creates a new Policy Manager database and associated properties based on the selected database type.
- The "Use existing database" option uses an existing Policy Manager tablespace, and retains all tables created by any previous installation.
- The "Use JNDI datasource" option allows you to connect to a database from a server using the datasource name. *This option is currently unavailable and is for embedded implementations only.*

Note: If you are using MSSQL, you will need to configure an additional quartz trigger property after you configure the database. See instruction at the end of the MSSQL section.

To Configure Database Options (Policy Manager Console/Web Services)

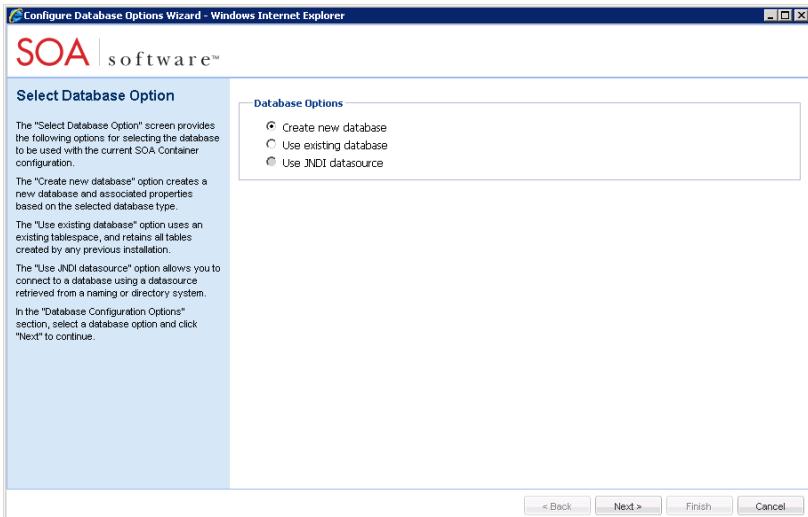
Step	Procedure
1.	<p>In the "Database Options" section, select a database option and click Next to continue.</p> <p><i>Note: A summary of property information is presented below for the "Create new database" and "Use existing database" options.</i></p> 

Figure 1-33: Configure Database Options Wizard (Select Database Option—Create new database)—Policy Manager Console/Web Services

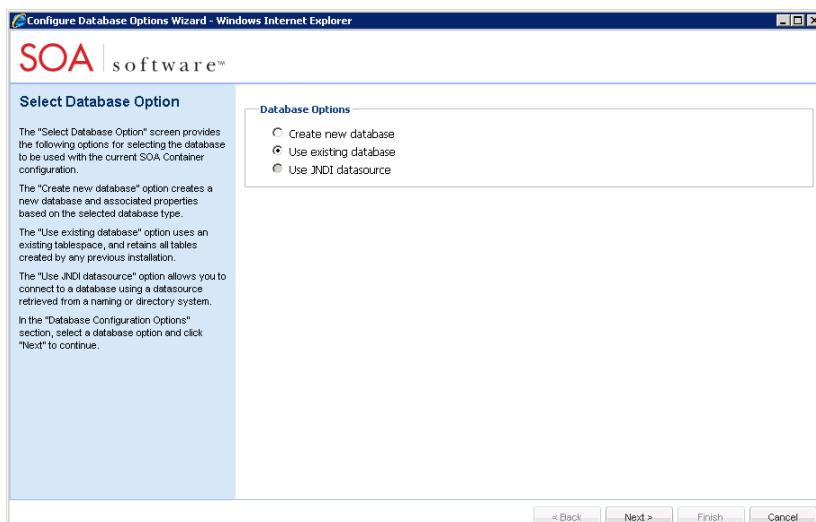


Figure 1-34: Configure Database Options Wizard (Select Database Option—Use

To Configure Database Options (Policy Manager Console/Web Services)

	existing database)—Policy Manager Console/Web Services
2.	<p>The "Specify Database Options" screen displays.</p> <p>For the "Create new database" and "Use existing database" options, the following "Database Types" are supported: MS SQL Server, MySQL Server, Oracle SID, Oracle Service Name, and DB2. Select the "Database Type" from the drop-down list box, review the configuration options for each database type (below), and configure the options.</p> <p><i>NOTE: The database properties for each database option are the same except that the "Administrator Credentials" section is not required on the "Use existing database" option as the database already exists and permissions have been previously established.</i></p> <p><u>MS SQL SERVER</u></p> <p>This section provides an overview of the configuration options for MS SQL Server.</p> <p><u>Database Details</u></p> <ul style="list-style-type: none"> • Database Type—Select the MS SQL Server database type. • Name—Enter the database name. <p><u>Administrator Credentials</u></p> <ul style="list-style-type: none"> • Admin Username—Enter a valid administrator Username. • Admin Password—Enter a valid administrator Password. <p><i>Note: You must supply the Username and Password of a user with sufficient privileges to create a new tablespace, such as a DBA.</i></p> <p><u>Properties</u></p> <ul style="list-style-type: none"> • Hostname—Enter the name or IP address of the computer that is hosting the database. Default entry = [computer_name]. • Port—Enter a port number. Port 1433 is the default port assigned in a standard SQL Server installation. • Named Instance—Used if you have set up separate SQL Server databases and would like to use a specific instance to store Policy Manager data. • Database—Enter a database name. You may enter any valid name. • Username—Enter the database Username. • Password—Enter the database Password. <p><u>Pool Configuration</u></p> <p>The following "Pool Configuration" options are available. Default values represent those used for a typical configuration.</p> <ul style="list-style-type: none"> • Max Pool Size—The maximum number of active connections that can be allocated from this pool at the same time, or negative for no limit. The default value is 30. • Min Pool Size—The minimum number of connections that can remain idle in the pool, without extra ones being created, or zero to create none. The default value is 5. • Max Wait Time—The maximum number of milliseconds that the pool will wait (when there are no available connections) for a connection to be returned before throwing an exception, or -1 to wait indefinitely. The default value is 30,000.

To Configure Database Options (Policy Manager Console/Web Services)

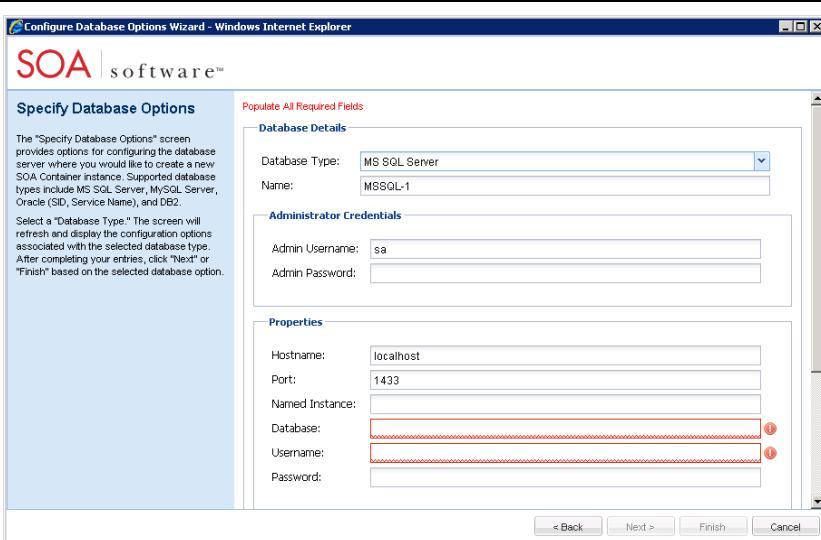


Figure 1-35: Specify Database Options (MS SQL Server #1)—Policy Manager Console/Web Services

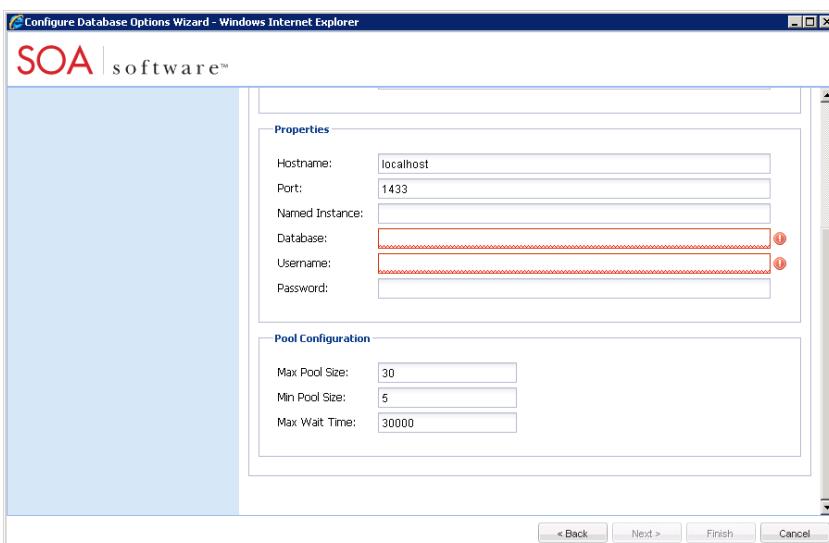


Figure 1-36: Specify Database Options (MS SQL Server #2)—Policy Manager Console/Web Services

Note: After you configure the MSSQL database and receive the summary screen confirmation, you must set the quartz trigger property to **True**. This is required to prevent database dead-locks.

Select the *Configuration* tab and the **com.soa.scheduler.quartz** Configuration Category. Change the **org.quartz.jobStore.acquireTriggersWithinLock** property to **True**. Resume the Policy Manager configuration after completing this task in the

To Configure Database Options (Policy Manager Console/Web Services)

	<p><i>Installed Features > Pending Installation Tasks.</i></p> <hr/> <p><u>MY SQL</u></p> <p>This section provides an overview of the configuration options for MySQL Server.</p> <p><u>Database Details</u></p> <ul style="list-style-type: none"> • Database Type—Select the MySQL database type. • Name—Enter the database name. <p><u>Administrator Credentials</u></p> <ul style="list-style-type: none"> • Admin Username—Enter a valid administrator Username. • Admin Password—Enter a valid administrator Password. <p><i>Note: You must supply the Username and Password of a user with sufficient privileges to create a new tablespace, such as a DBA.</i></p> <p><u>Properties</u></p> <ul style="list-style-type: none"> • Hostname—Enter the name or IP address of the computer that is hosting the database. Default entry = [computer_name]. • Port—Enter a port number. Port 3306 is the default port assigned in a standard SQL Server installation. • Named Instance—Used if you have set up separate SQL Server databases and would like to use a specific instance to store Policy Manager data. • Database—Enter a database name. You may enter any valid name. • Username—Enter the database Username. • Password—Enter the database Password. <p><u>Pool Configuration</u></p> <p>The following "Pool Configuration" options are available. Default values represent those used for a typical configuration.</p> <ul style="list-style-type: none"> • Max Pool Size—The maximum number of active connections that can be allocated from this pool at the same time, or negative for no limit. The default value is 30. • Min Pool Size—The minimum number of connections that can remain idle in the pool, without extra ones being created, or zero to create none. The default value is 5. • Max Wait Time—The maximum number of milliseconds that the pool will wait (when there are no available connections) for a connection to be returned before throwing an exception, or -1 to wait indefinitely. The default value is 30,000.
--	--

To Configure Database Options (Policy Manager Console/Web Services)

Figure 1-37: Specify Database Options (MySQL Server #1)—Policy Manager Console/Web Services

Figure 1-38: Specify Database Options (MySQL Server #2)—Policy Manager Console/Web Services

Oracle SID

This section provides an overview of the configuration options for Oracle SID.

Database Details

- Database Type—Select the Oracle SID database type.
- Name—Enter the database name.

Administrator Credentials

- Admin Username—Enter a valid administrator Username.

To Configure Database Options (Policy Manager Console/Web Services)

- Admin Password—Enter a valid administrator Password.

Note: You must supply the Username and Password of a user with sufficient privileges to create a new tablespace, such as a DBA.

Properties

- Username—Enter the database Username.
- Password—Enter the database Password.
- Hostname—Enter the name or IP address of the computer that is hosting the database. Default entry = [computer_name].
- Port—Enter a port number. Port 1521 is the default port assigned in a standard Oracle installation.
- SID—Enter an existing Oracle instance.
- Tablespace—Enter a valid name for the new tablespace.

Pool Configuration

The following "Pool Configuration" options are available. Default values represent those used for a typical configuration.

- Max Pool Size—The maximum number of active connections that can be allocated from this pool at the same time, or negative for no limit. The default value is 30.
- Min Pool Size—The minimum number of connections that can remain idle in the pool, without extra ones being created, or zero to create none. The default value is 5.
- Max Wait Time— The maximum number of milliseconds that the pool will wait (when there are no available connections) for a connection to be returned before throwing an exception, or -1 to wait indefinitely. The default value is 30,000.

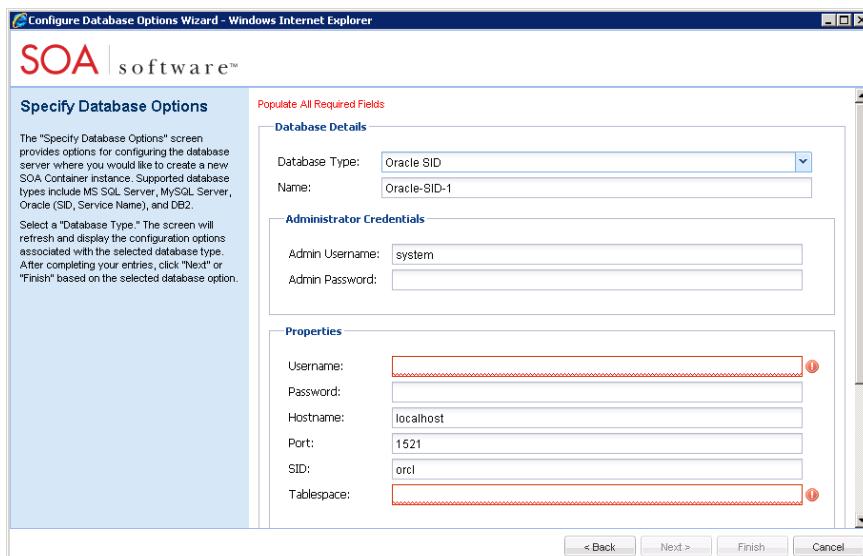


Figure 1-39: Specify Database Options (Oracle SID #1)—Policy Manager Console/Web Services

To Configure Database Options (Policy Manager Console/Web Services)

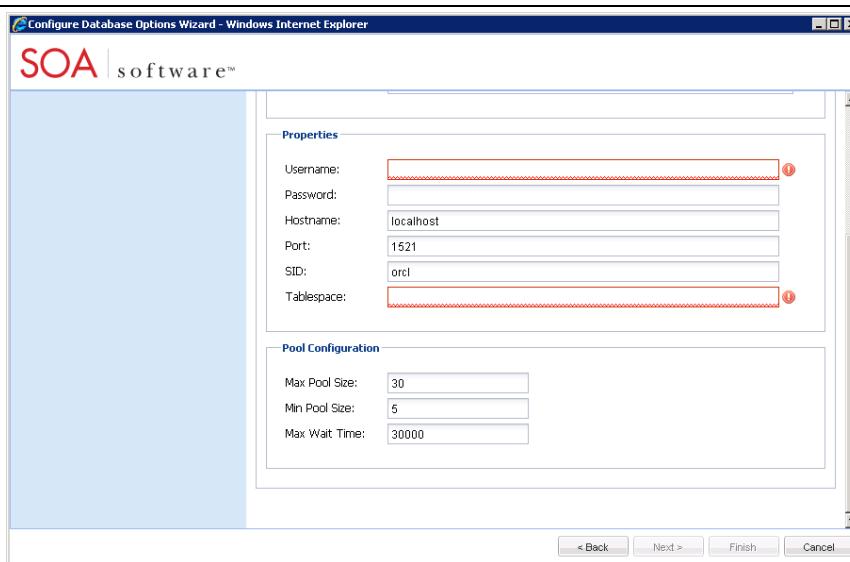


Figure 1-40: Specify Database Options (Oracle SID #2)—Policy Manager Console/Web Services

Oracle Service Name

This section provides an overview of the configuration options for Oracle Service Name.

Database Details

- Database Type—Select the Oracle Service Name database type.
- Name—Enter the database name.

Administrator Credentials

- Admin Username—Enter a valid administrator Username.
- Admin Password—Enter a valid administrator Password.

Note: You must supply the Username and Password of a user with sufficient privileges to create a new tablespace, such as a DBA.

Properties

- Username—Enter the database Username.
- Password—Enter the database Password.
- Hostname—Enter the name or IP address of the computer that is hosting the database. Default entry = [computer_name].
- Port—Enter a port number. Port 1521 is the default port assigned in a standard Oracle installation.
- Service Name—Enter an instance alias.
- Tablespace—Enter a valid name for the new tablespace.

Pool Configuration

The following "Pool Configuration" options are available. Default values represent those used for a typical configuration.

To Configure Database Options (Policy Manager Console/Web Services)

- Max Pool Size—The maximum number of active connections that can be allocated from this pool at the same time, or negative for no limit. The default value is 30.
- Min Pool Size—The minimum number of connections that can remain idle in the pool, without extra ones being created, or zero to create none. The default value is 5.
- Max Wait Time— The maximum number of milliseconds that the pool will wait (when there are no available connections) for a connection to be returned before throwing an exception, or -1 to wait indefinitely. The default value is 30,000.

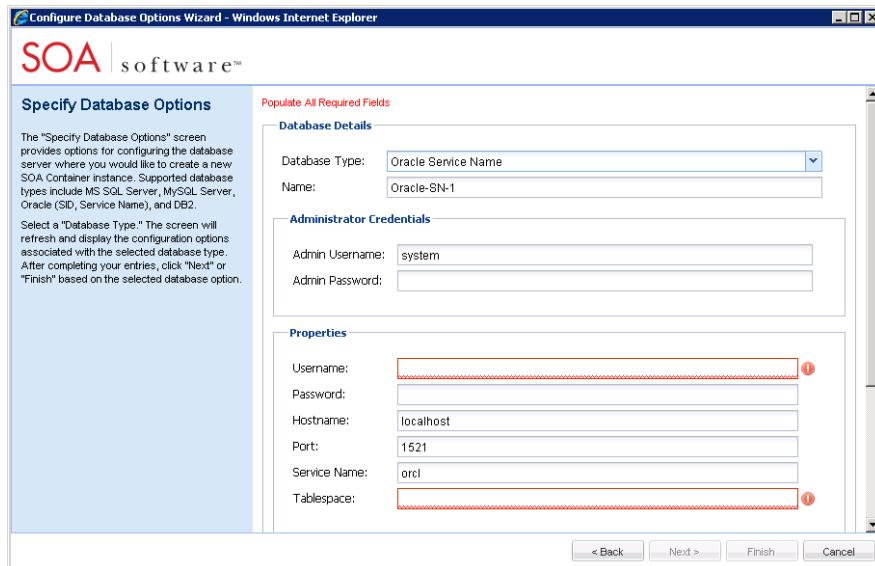


Figure 1-41: Specify Database Options (Oracle Service Name #1)—Policy Manager Console/Web Services

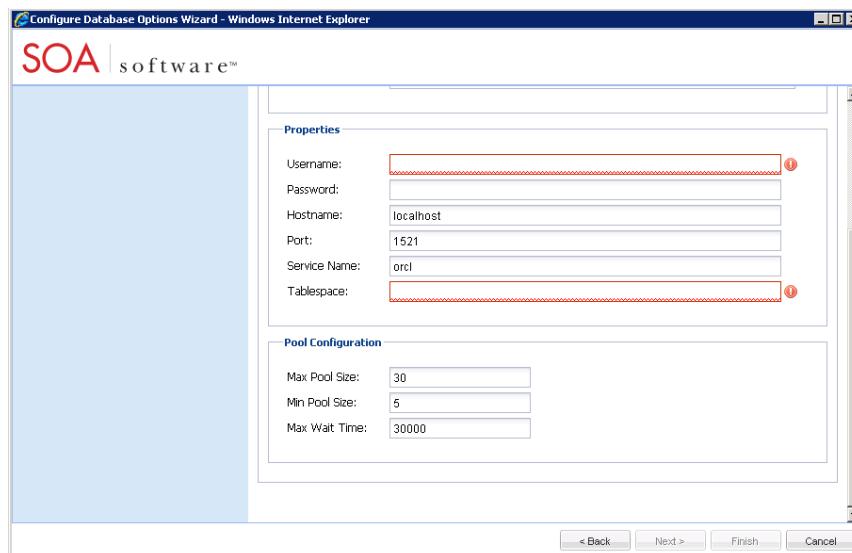


Figure 1-42: Specify Database Options (Oracle Service Name #2)—Policy Manager Console/Web Services

To Configure Database Options (Policy Manager Console/Web Services)

	<p><u>DB2</u></p> <p>This section provides an overview of the configuration options for DB2.</p> <p><u>Database Details</u></p> <ul style="list-style-type: none"> • Database Type—Select the DB2 database type. • Name—Enter the database name. <p><u>Administrator Credentials</u></p> <ul style="list-style-type: none"> • Admin Username—Enter a valid administrator Username. • Admin Password—Enter a valid administrator Password. <p><i>Note: You must supply the Username and Password of a user with sufficient privileges to create a new tablespace, such as a DBA.</i></p> <p><u>Properties</u></p> <ul style="list-style-type: none"> • Hostname—Enter the name or IP address of the computer that is hosting the database. Default entry = [computer_name]. • Port—Enter a port number. Port 50000 is the default port assigned in a standard SQL Server installation. Note: Port 50000 is the default port assigned to a standard DB2 installation. • Database—Enter a database name. You may enter any valid name. • Username—Enter the database Username. • Password—Enter the database Password. • Tablespace—In the Tablespace field, enter the tablespace. You may enter any valid name. Note: If you create a tablespace with the same name as an existing tablespace, then the existing one will be completely overwritten by the new one. • Buffer Name / Is new buffer?:—DB2 buffer pools are where DB2 caches database tables and indexes. To use a DB2 buffer to manage server performance, specify the buffer name in the "Buffer Name" field. The specified buffer will access the appropriate tuning script to obtain pool size information. <p>If you would like Policy Manager to create a buffer, click the "Is New Buffer" checkbox and enter the "Buffer Name." Policy Manager will create a new DB2 Buffer and assign a default size of 32K. You can use the "DB2 Control Center" to update the buffer configuration.</p> <p>Note: The DB2 tablespace creation process requires that a buffer be created. This means that configuring a "Buffer Name" is supported only when creating a new database. You can modify the pool size of the defined buffer, but reconfiguring the tablespace with a new "Buffer Name" is not supported.</p> <p><u>Pool Configuration</u></p> <p>The following "Pool Configuration" options are available. Default values represent those used for a typical configuration.</p> <ul style="list-style-type: none"> • Max Pool Size—The maximum number of active connections that can be allocated from this pool at the same time, or negative for no limit. The default value is 30. • Min Pool Size—The minimum number of connections that can remain idle in the pool,
--	--

To Configure Database Options (Policy Manager Console/Web Services)

	<p>without extra ones being created, or zero to create none. The default value is 5.</p> <ul style="list-style-type: none"> • Max Wait Time— The maximum number of milliseconds that the pool will wait (when there are no available connections) for a connection to be returned before throwing an exception, or -1 to wait indefinitely. The default value is 30,000. <p>Specify Database Options</p> <p>The "Specify Database Options" screen provides options for configuring the database server where you would like to create a new SOA Container instance. Supported database types include MS SQL Server, MySQL Server, Oracle (SID, Service Name), and DB2.</p> <p>Select a "Database Type." The screen will refresh and display the configuration options associated with the selected database type. After completing your entries, click "Next" or "Finish" based on the selected database option.</p> <p>Database Details</p> <p>Database Type: DB2 Name: DB2-1</p> <p>Administrator Credentials</p> <p>Admin Username: system Admin Password: [REDACTED]</p> <p>Properties</p> <p>Hostname: localhost Port: 50000 Database: db2 Username: [REDACTED] Password: [REDACTED] Tablespace: [REDACTED] Buffer Name: [REDACTED]</p>
3.	<p>After completing your database properties entries, click Next to continue. The database configuration "Summary" screen displays.</p>

Figure 1-43: Specify Database Options (DB2 #1)—Policy Manager Console/Web Services

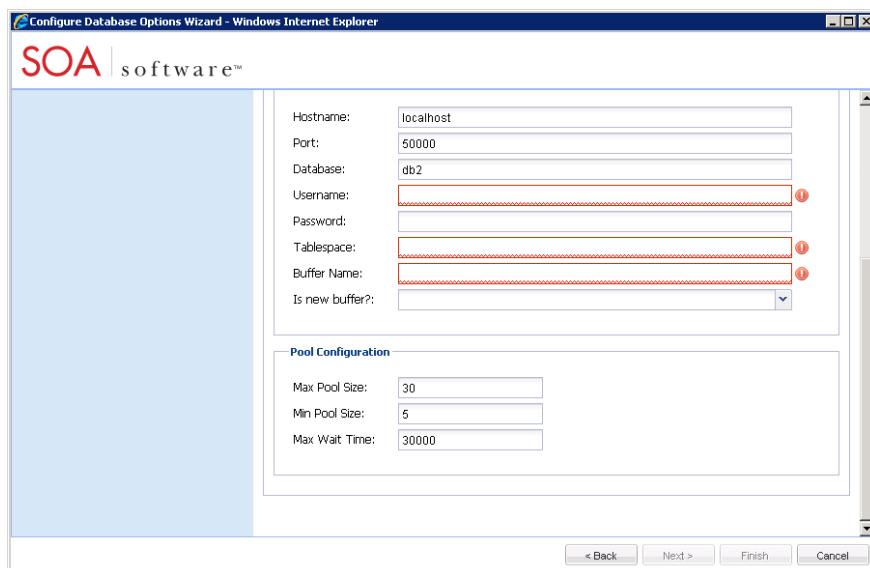
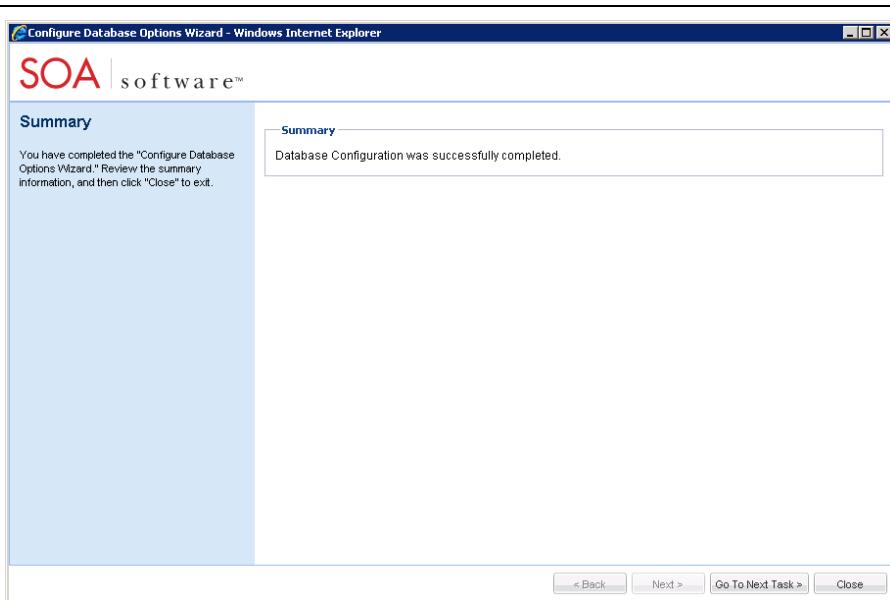


Figure 1-44: Specify Database Options (DB2 #2)—Policy Manager Console/Web Services

To Configure Database Options (Policy Manager Console/Web Services)**Figure 1-45: Configure Database Options Summary**

Click **Go To Next Task**. The "Install Schemas" screen displays.

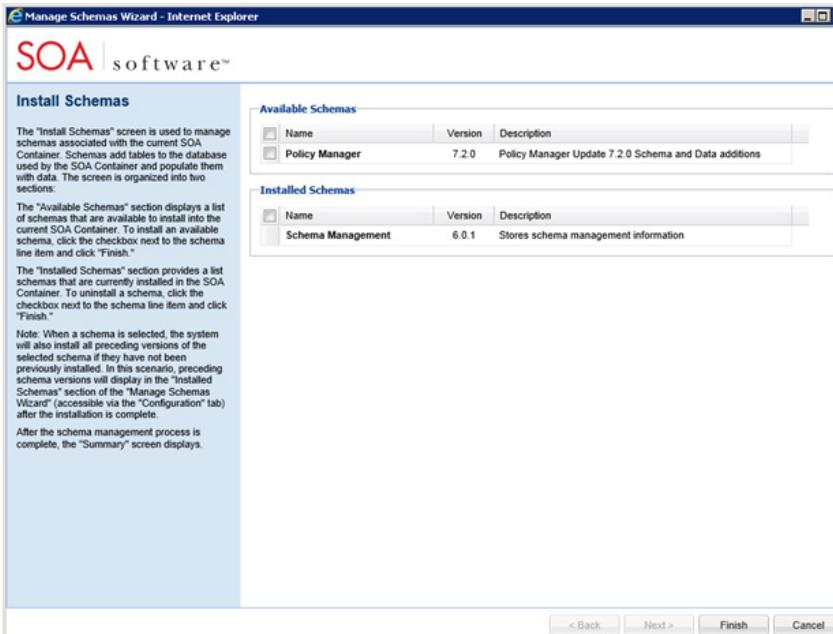
The "Install Schemas" screen is used to manage schemas associated with the current SOA Container. Schemas add tables to the database used by the SOA Container and populate them with data. The screen is organized into two sections:

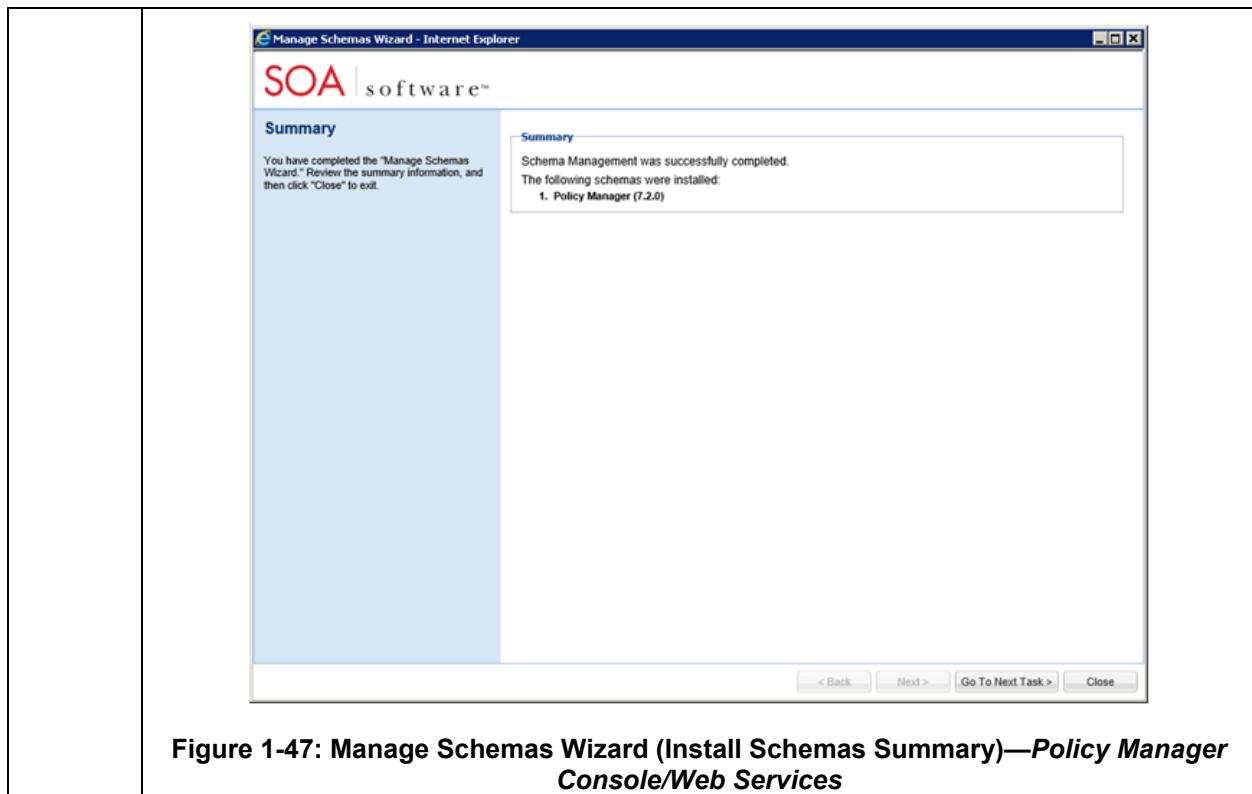
The "Available Schemas" section displays a list of schemas that are available to install into the current SOA Container. To install an available schema, click the checkbox next to the schema line item and click **Finish**.

The "Installed Schemas" section provides a list of schemas that are currently installed in the SOA Container. To uninstall a schema, click the checkbox next to the schema line item and click **Finish**.

After the schema management process is complete, the "Summary" screen displays.

To Configure Database Options (Policy Manager Console/Web Services)

	 <p>Figure 1-46: Manage Schemas Wizard (Install Schemas)—Policy Manager Console/Web Services</p> <hr/> <p>Note: When a schema is selected, the system will also install all preceding versions of the selected schema if they have not been previously installed. In this scenario, preceding schema versions will display in the "Installed Schemas" section of the "Manage Schemas Wizard" (accessible via the "Configuration" tab) after the installation is complete.</p> <hr/>
4.	Click the checkbox of the schemas you would like to install and/or uninstall and click Finish . The "Summary" screen displays. Review the summary information and click Continue To Next Task .

To Configure Database Options (Policy Manager Console/Web Services)**Configure Policy Manager Administrator Credentials (Policy Manager Console/Web Services)**

This section provides instructions on how to specify Policy Manager "Administrator" credentials that will allow you to log into the Policy Manager "Management Console."

To Configure Policy Manager Administrator Credentials

Step	Procedure
1.	<p>The "Policy Manager Administrator Credentials" screen is used to create an "Administrator" user account definition for logging into the Policy Manager "Management Console." The user account definition is composed of a "Username" and "Password."</p> <p>After restarting the SOA Software Administration Console, you can log into the Policy Manager "Management Console" using the administrator credentials. The User Account definition can be updated via the "Security" tab.</p>

To Configure Policy Manager Administrator Credentials

	<p>The screenshot shows the 'Define Policy Manager Administrator Credentials' screen in a Windows Internet Explorer browser. The title bar says 'Define Policy Manager Administrator Credentials - Windows Internet Explorer'. The main content area has a heading 'SOA software™' and a sub-section 'Define Policy Manager Administrator Credentials'. A detailed description explains the purpose of the screen: to create an 'Administrator' user account for logging into the Policy Manager Management Console. It notes that the user account is composed of a 'Username' and 'Password'. Below this is another note about restarting the system after configuration. On the right, there's a 'Credentials' section with three input fields: 'Username' (set to 'administrator'), 'New Password' (set to '*****'), and 'Confirm New Password' (also set to '*****'). At the bottom are buttons for '< Back', 'Next >', 'Finish', and 'Cancel'.</p>
	<p>Figure 1-48: Define Policy Manager Administration Credentials—Policy Manager Console/Web Services</p>

2. In the "Credentials" section, enter "Username," "New Password," and "Confirm New Password" for the Policy Manager "Administrator" user account. After completing your entries, click **Finish**. The system restart message displays. Click **OK** to restart the system, click **Cancel** to restart the system later.

	<p>The screenshot shows the 'Credentials Summary' screen. It displays the entered credentials: Username 'administrator', New Password '*****', and Confirm New Password '*****'. Below this is a 'Message from webpage' dialog box with the text: 'The system needs to be restarted for the feature changes to take effect. Select OK to restart the system now. Select Cancel if you wish to restart the system later.' There are 'OK' and 'Cancel' buttons at the bottom of the dialog. At the very bottom of the main window are buttons for '< Back', 'Next >', 'Finish', and 'Close'.</p>
	<p>Figure 1-49: Define Policy Manager Administration Credentials (Credentials Summary)—Policy Manager Console/Web Services</p>
3.	<p>The "Complete Configuration" displays. Refer to the "Completing the Configuration" section for more information.</p>

Completing the Configuration (Policy Manager Console/Web Services)

The "Complete Configuration" screen displays a system restart progress indicator and allows you to log out of the SOA Software Administration Console after the system restart is complete.

To Complete the Configuration

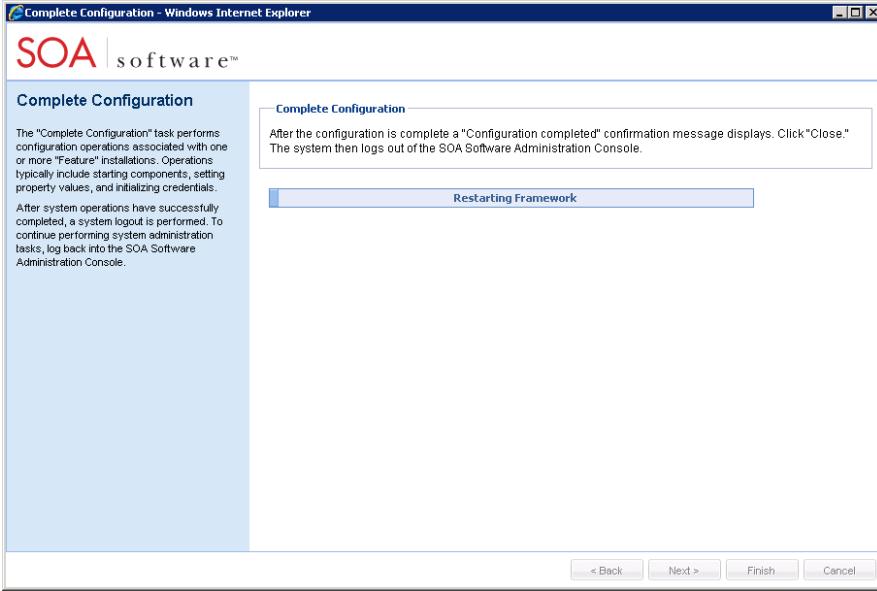
Step	Procedure
1.	<p>The "Complete Configuration" task performs configuration operations associated with one or more "Feature" installations. Operations typically include starting components, setting property values, and initializing credentials.</p> <p>The system restart was initiated when Finish was clicked on the "Credentials Summary" screen. After the system restarts and initializes the installed features for use, click Close to log out of the SOA Software Administration Console.</p> <p>To exit the wizard and perform a system restart at a later time, click Close. Configuration changes are saved and the "Complete Configuration" task is available via the "Installed Features" tab in the "Pending Installation Tasks" section.</p> 

Figure 1-50: Complete Configuration—Policy Manager Console/Web Services

STEP 8: PERFORM SOA SOFTWARE ADMINISTRATION CONSOLE LOGIN (POLICY MANAGER CONSOLE/WEB SERVICES)

After the system exits the SOA Software Administration Console, the "Login" screen displays. Select the "Admin Console" domain and click "Enter" to log back in and continue system administration activities.



Figure 1-51: SOA Software Administration Console—Login Screen

STEP 9: LAUNCH POLICY MANAGER MANAGEMENT CONSOLE

After completing the configuration of Policy Manager features, and restarting the system, launch the "Policy Manager Management Console" as follows:

Enter: `http://<hostname>:<port>/ms/index.do`

Enter the Username and Password credentials you defined on the "Define Policy Manager Administrator Credentials" screen during the configuration of the Policy Manager feature.

**

Chapter 2: Installing Updates to Existing SOA Software Platform Installation

This chapter provides instructions for installing SOA Software Platform Updates (Manual and Silent methods).

CONFIRM INSTALLED UPDATES

If you need to confirm which SOA Software Platform updates are currently installed perform the following steps:

- Launch the SOA Software Administration Console and click the "Installed Features" tab.
- To view bundles associated with a current update, click the "Installed Features" tab, select "Bundle" from the "Filter" drop-down list box, and click the "Version" column to sort by version.
- To view "Bundle Details" click on a bundle line item.

MANUALLY INSTALLING SCHEMAS

If you have a requirement to manually install the SOA Software Platform schemas, contact SOA Software Customer Support prior to beginning this installation to obtain a series of schema installation scripts and additional instructions.

UPDATE EXISTING SOA SOFTWARE PLATFORM 7.2 INSTALLATION (MANUAL)

This section provides instructions for applying an SOA Software Platform 7.2 Update to a SOA Software Platform 7.2 Installation. GUI and Silent Update instructions are provided. The update must be applied to all SOA Container Instances (e.g., Policy Manager, Network Director, Tomcat agent, etc.).

The update process involves a series of configuration steps including:

- Copying the SOA Software Platform Update .zip files to the SOA Software Platform 7.2 Release Directory (\sm70) and extracting the automated .zip file.
- Applying the update(s) by running the "Configure Container Instance Wizard" (GUI) or running the Silent Update.
- Starting the SOA Container Instance after the "Configure Container Instance Wizard" (GUI) or Silent Update has completed the update process.

- Updating database schemas via SOA Software Administration Console (GUI), or by using a third-party Database Schema Management Tool (Silent Update).

The SOA Software Platform Update .zip files can be obtained via the SOA Software Customer Support website www.support.soa.com in the Downloads > Policy Manager > PM72 > Updates section.

An existing SOA Software Platform 7.2 installation will have one or more SOA Containers configured.

Files required for this task include:

- SOA Software Platform .zip File (e.g., soa-update-7.2.X.zip)

Apply SOA Software Platform Update (Existing Installation—Manual)

Step	Procedure
1.	Make a backup copy of your SOA Software Platform 7.2 Release Directory (\sm70) and database(s).
2.	<ol style="list-style-type: none"> 1. Copy the SOA Software Platform Update .zip file (soa-update-7.2.X.zip) to the SOA Software Platform 7.2 Release Directory (\sm70). Update .zip files can be obtained via the SOA Software Customer Support website (https://support.soa.com/support). 2. Extract the soa-update-7.2.X.zip file to the SOA Software Platform 7.2 Release Directory (\sm70). If multiple updates are being applied, files should be extracted in version order (earliest version first). 3. When the "Confirm file replace" dialog displays, click Yes to All. <p>The automated zip file then updates a series of files in the SOA Software Platform 7.2 Release Directory (\sm70) and adds the update to the SOA Software Administration Console "Repository."</p>
3.	<p>After the automated zip file completes its processing, stop the SOA Container Instance that the update will be applied to.</p> <p><u>Stop Process in Windows</u> Close the DOS Window or type <code>ctrl-C</code>.</p> <p><u>Stop Process as Windows Service</u> Launch Program Group (Settings /Control Panel/Administrative Tools/Services). Select SOA Software Container Instance - Note that the instance name is displayed as the Container Key. From "Actions" menu, select Stop.</p> <p><u>Stop Process in UNIX</u> Send the process a KILL signal or Ctrl-C.</p> <p><u>Stop Process in UNIX (Background)</u></p>

Apply SOA Software Platform Update (Existing Installation—Manual)

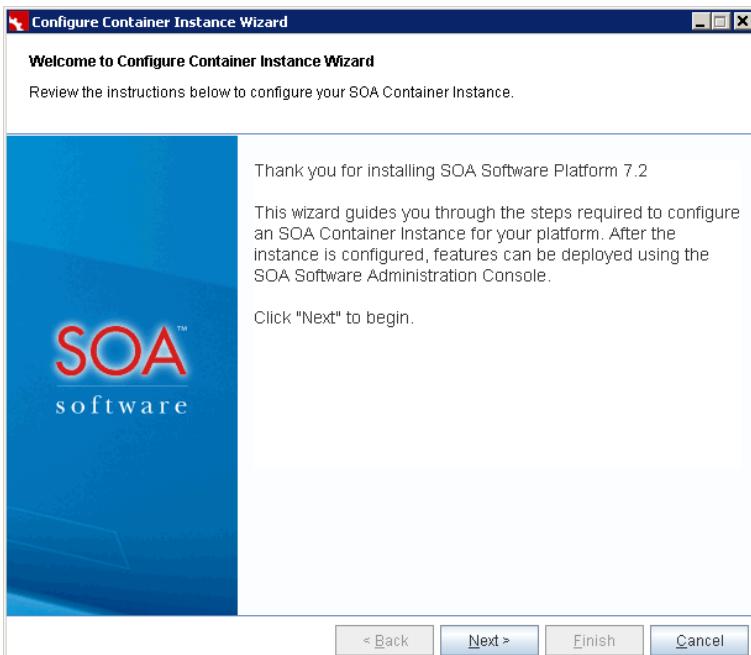
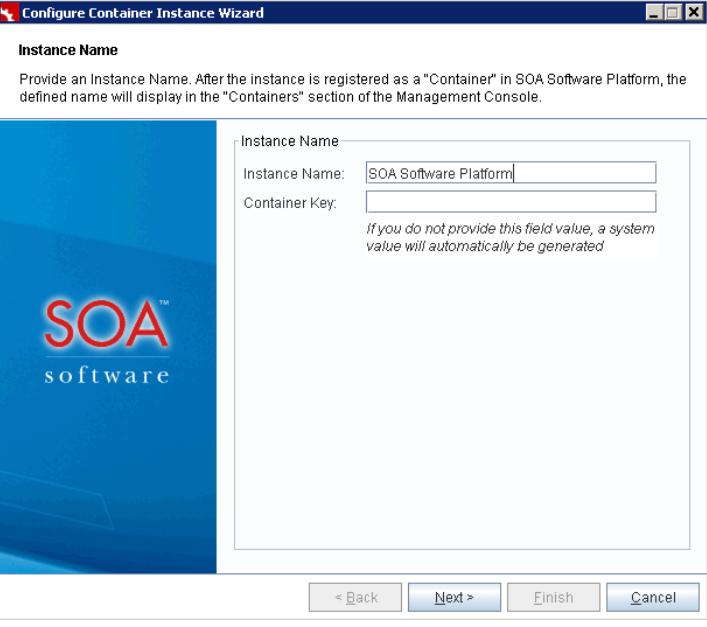
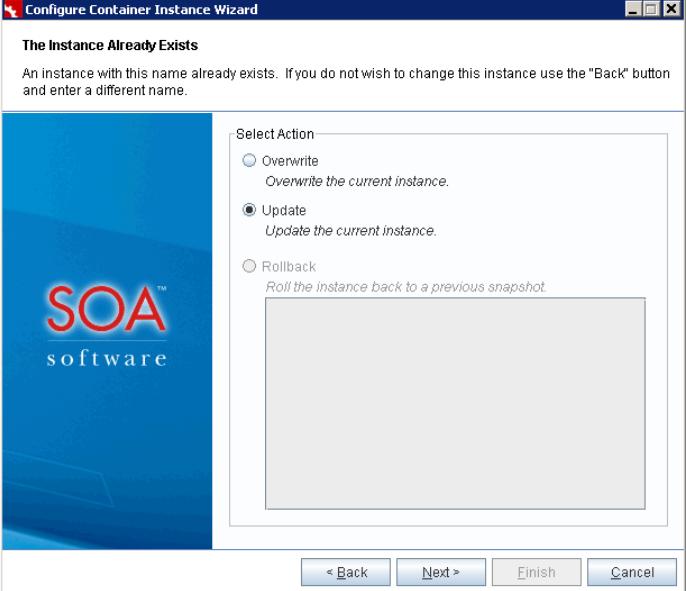
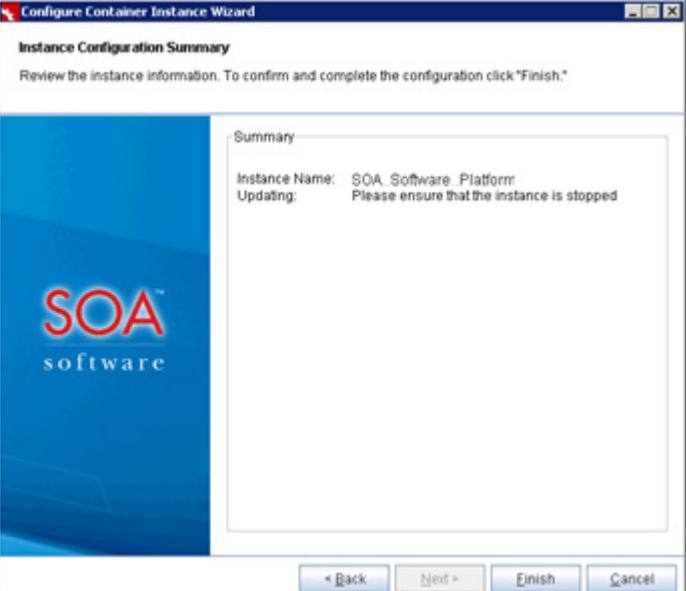
Step	Procedure
	<p>Navigate to <code>sm70/bin</code> and type <code>shutdown.sh</code></p>
4.	<p>After applying the .zip file update(s), delete the <code>/sm70/instances/configurator/cache</code> directory if it exists.</p>
5.	<p>The next step is to launch the "Configure Container Instance Wizard" and enter the SOA Container Instance Name that the SOA Software Platform 7.2 update(s) will be applied to.</p> <p>Two methods can be used to launch the "Configure Container Instance Wizard."</p> <ol style="list-style-type: none"> 1) Launch from the SOA Software Platform Program Group: Click the Start menu, navigate to the SOA Software Platform Program Group, and click Configure Container Instance. 2) Perform a manual start: Navigate to the SOA Software Platform Release Directory <code>c:\sm70\bin</code> and enter: <code>startup configurator</code> <p>The "Welcome to Configure Container Instance Wizard" screen displays. Review the information and click Next to continue.</p> 
6.	<p>The "Instance Name" screen displays. Here you specify the name of the "SOA Software</p>

Figure 2-1: Configure Container Instance Wizard—Welcome to Configure Container Instance

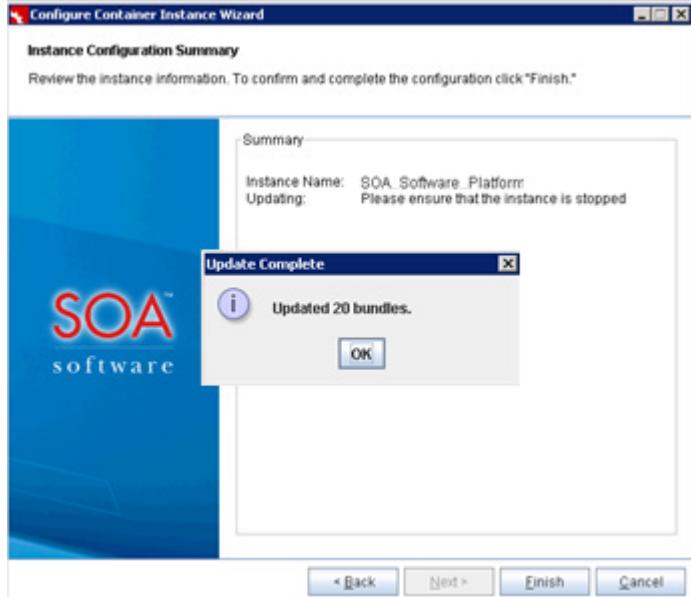
Apply SOA Software Platform Update (Existing Installation—Manual)

Step	Procedure
	<p>Container Instance" the update(s) will be applied to.</p>  <p>Figure 2-2: Configure Container Instance Wizard—Instance Name</p>
7.	<p>Enter the Container Instance Name and click Next to continue.</p> <hr/> <p>Note: To find the Container Instance Name, navigate to the <code>sm70/instances</code> folder and view the instances currently defined. Note that the Container Instance Name is case sensitive.</p> <hr/> <p>The "Instance Already Exists" screen displays. To apply the update to the selected container instance, click the Update radio button and click Next.</p>

Apply SOA Software Platform Update (Existing Installation—Manual)

Step	Procedure
	
	<p style="text-align: center;">Figure 2-3: Instance Already Exists—Update</p>
8.	<p>The "Instance Configuration Summary" screen displays. To apply the update(s), click Finish. Note that the SOA Container Instance must be stopped prior to applying the update(s).</p> 
	<p style="text-align: center;">Figure 2-4: Configure Container Instance Wizard—Instance Configuration Summary (Complete Update)</p>
9.	<p>The SOA Container update process begins and a progress indicator displays. After the update process is complete the "Update Complete" dialog displays and indicates the</p>

Apply SOA Software Platform Update (Existing Installation—Manual)

Step	Procedure
	<p>number of bundles that have been updated.</p> <hr/> <p>Note: The number of bundles displayed on the "Update Complete" message will vary based on your specific SOA Container configuration and number of updates being applied."</p> <hr/> 
	<p>Figure 2-5: Configure Container Instance Wizard—Update Complete</p>
10.	<p>Click OK on the "Update Complete" dialog. The "Configure Container Instance Wizard" closes.</p>
11.	<p>Start the updated SOA Container.</p> <p><u>Start Process in Windows</u></p> <p>Navigate to <code>sm70\bin</code> and type <code>startup <instance name></code></p> <p><u>Start Process as Windows Service</u></p> <p>Launch Program Group (Settings /Control Panel/Administrative Tools/Services)</p> <p>Select SOA Software Container Instance - Note that the instance name is displayed as the Container Key.</p> <p>From "Actions" menu, select Start.</p> <p><u>Start Process in UNIX</u></p> <p>Navigate to <code>sm70/bin</code> and type <code>startup.sh <instance name></code></p>

Apply SOA Software Platform Update (Existing Installation—Manual)

Step	Procedure
	<p><u>Start Process in UNIX (Background)</u> Navigate to <code>sm70/bin</code> and type <code>startup.sh <instance name> -bg</code></p>
14.	<p>Perform the following prerequisite steps before launching the SOA Software Administration Console</p> <ul style="list-style-type: none"> • <u>Deploy Database Driver</u>—Before performing the database configuration in the SOA Software Administration Console, verify that a database driver for the database used with the current SOA Container configuration is deployed to the <code>c:\sm70\instances\<container instance>\deploy</code> folder. If a database driver is not deployed, copy the database driver to the <code>\deploy</code> directory. Refer to the "Appendix B: Database Drivers" for a list of supported database drivers. • <u>Clear Browser Cache</u>—Before launching the SOA Software Administration Console, clear the browser cache. This is necessary to ensure that user interface changes included in the SOA Software Platform update(s) display properly. • <u>Manually Installing Policy Manager Schemas</u>—If you have a requirement to manually install the Policy Manager schemas, contact SOA Software Customer Support prior to beginning this installation to obtain a series of schema installation scripts and additional instructions.
15.	<p>Users that will not be utilizing the SOA Software Administration Console can skip the remainder of this procedure.</p>
16.	<p>After successfully starting the container instance, deploying the database driver, and clearing the browser cache, launch the "SOA Software Administration Console" for the updated SOA Container Instance:</p> <p>Enter: <u><a href="http://<hostname>:<port>/admin">http://<hostname>:<port>/admin</u></p>

Apply SOA Software Platform Update (Existing Installation—Manual)

Step	Procedure
	 <p>The screenshot shows the SOA Software Administration Console login page. At the top, there is a logo for "SOA software™". Below it is a blue header bar. On the left, there are three input fields: "Username" (empty), "Password" (empty), and a dropdown menu set to "Domain: Admin Console". To the right of these fields is a "Login" button. To the right of the login form, the text "Welcome to SOA Software Administration Console Version 7.2" is displayed. Below this, a descriptive paragraph explains that the Repository Manager, Policy Manager, and Service Manager combine to form a comprehensive Integrated SOA Governance Automation solution. Further down, there is a link to learn more at http://www.soa.com and contact support@soa.com. At the bottom of the page, a copyright notice states "SOA Software, Service Manager, and Policy Manager are trademarks of SOA Software, Inc. © 2001-2014. All rights reserved." followed by a link to the "Terms & Conditions of Use".</p>
17.	<p>Select the "Admin Console" domain, enter the "Username" and "Password," and click Login. The SOA Software Administration Console launches and displays the "Available Features" tab.</p>  <p>The screenshot shows the SOA Software Administration Console interface after logging in. The top navigation bar includes links for "AVAILABLE FEATURES", "INSTALLED FEATURES", "CONFIGURATION", "REPOSITORY", and "SYSTEM". The "AVAILABLE FEATURES" tab is selected. The main content area lists several features with their descriptions:</p> <ul style="list-style-type: none"> SOA Software Network Director: 7.2.0. This feature enables a Container to host Virtual Services. The Virtual Services are defined in the SOA Software Management Console. When the Network Director feature is enabled, the Container's metadata is updated to reflect this support. The metadata must be updated in the SOA Software Management Console so that it is aware that Virtual Services can be hosted on the Container. The feature also enables support for default Bindings and Policies. The default Bindings are SOAP and HTTP (REST and POX). The default Policies are WS-Addressing, WS-Auditing, WS-Security, HTTP Security, Authentication, and Authorization. SOA Software Ping Support: 7.2.0. This feature includes a simple "ping" web service for testing the functional state of the container's web service framework. SOA Software Policy Manager Console: 7.2.0. This feature includes a web based user interface for the central Policy Manager governance application. The user interface provides a dashboard and the primary interface for configuration, management and administration of Policy Manager and Service Manager. The console must interact with a Container (may be the same container) configured with the SOA Software Policy Manager Services to fulfill the core central governance application requirements. SOA Software Policy Manager Services: 7.2.0. This feature includes services provided by the central Policy Manager governance application. These services include, but are not limited to, UDDIv2 and UDDIv3, WS-MetadataExchange, SOA Container Configuration, an XACML Policy Decision Point, a WS-Trust Security Token Service, Alert reporting, and RESTful interfaces to the governance model. In addition, this feature includes engines for performing Quality of Service calculations and health and status monitoring. SOA Software Scheduled Jobs: 7.2.0. This feature includes Scheduled Jobs required by PM Engine. SOA Software Security Services: 7.2.0. This feature includes Security Services required by PM Engine. SOA Software Tomcat Agent: 7.2.0. This feature is the policy enforcement point for the Apache Tomcat application server and provides WS-Policy enforcement for web services deployed to Tomcat. It can only be deployed in a Container deployed in a Tomcat instance and only supports the Apache Axis 1.4 SOAP framework. <p>A "Install Feature" button is located at the bottom right of the feature list.</p>

Figure 2-6: SOA Software Administration Console—Login

Apply SOA Software Platform Update (Existing Installation—Manual)

Step	Procedure
18.	<p>If you have previously installed the "SOA Software Policy Manager Services" feature, verify if additional schemas must be installed using the "Manage Schemas Wizard."</p> <p>To perform this task, in the SOA Software Administration Console, click the "Configure" tab. In the "Configuration Actions" section click "Manage Schemas." The "Manage Schemas Wizard" launches and displays the "Install Schemas" screen. In the "Available Schemas" section, select the checkbox of the available Policy Manager schema and click "Finish."</p> <hr/> <p>Note: If you have not previously installed the "SOA Software Policy Manager Services" feature, skip this section and refer to "Chapter 1: Installing and Configuring SOA Software Platform > Step 5: Install Policy Manager Features." Complete the procedure. During the database and schemas configuration process select all "Available" schemas on the "Manage Schemas Wizard" screen.</p> <hr/>
19.	After the configuration tasks are complete, navigate to the "Repository" tab and verify that the repository for the installed update is present. If it is not, click Refresh  to update the repository.
20.	As a final step, navigate to the "System" tab and click Restart .
21.	The update process is now complete.

UPDATE EXISTING SOA SOFTWARE PLATFORM 7.2 INSTALLATION (SILENT UPDATE)

This section describes the steps for applying a "SOA Software Platform Update" using an automated configuration properties file to an *existing* SOA Software Platform 7.2 installation.

An existing SOA Software Platform 7.2 installation will have an SOA Container installed.

Files required for this task include:

- SOA Software Platform Update .zip File (e.g., soa-update-7.2.X.zip).
- Silent Update Properties File configured with the wizard.mode=update option.

Apply SOA Software Platform 7.2 Silent Update (Existing Installation)

Step	Procedure
1.	Make a backup copy of your SOA Software Platform 7.2 Release Directory (\sm70) and

Apply SOA Software Platform 7.2 Silent Update (Existing Installation)

	database(s).
2.	<ol style="list-style-type: none"> 1. Copy the SOA Software Platform 7.2 Update .zip file (<code>soa-update-7.2.X.zip</code>) to the SOA Software Platform 7.2 Release Directory (<code>\sm70</code>). The update .zip file can be obtained via the SOA Software Customer Support website (https://support.soa.com/support). 2. Extract the <code>soa-update-7.2.X.zip</code> to the SOA Software Platform 7.2 Release Directory (<code>\sm70</code>). If multiple updates are being applied, files should be extracted in version order (earliest version first). 3. When the "Confirm file replace" dialog displays, click Yes to All. The automated zip file then updates a series of files in the SOA Software Platform 7.1 Release Directory (<code>\sm70</code>) and adds the update to the SOA Software Administration Console "Repository."
3.	<p>After the automated zip file completes its processing, stop the SOA Container Instance that the update will be applied to.</p> <p><u>Stop Process in Windows</u> Close the DOS Window or type <code>Ctrl-C</code></p> <p><u>Stop Process as Windows Service</u> Launch Program Group (Settings /Control Panel/Administrative Tools/Services) Select SOA Software Container Instance - Note that the instance name is displayed as the Container Key. From "Actions" menu, select Stop.</p> <p><u>Stop Process in UNIX</u> Send the process a KILL signal or <code>Ctrl-C</code></p> <p><u>Stop Process in UNIX (Background)</u> Navigate to <code>sm70/bin</code> and type <code>shutdown.sh</code></p>
4.	After applying the .zip file update(s), delete the <code>/sm70/instances/configurator/cache</code> directory if it exists.
5.	<p>The "Configure Container Instance Wizard" update process can be set up to run in an automated mode (i.e., silent). This is done by defining a properties file and pre-defining a set of property values to be used by the "Configure Container Instance Wizard" to automatically configure a Container instance.</p> <p><u>Define Silent Update Property File</u></p> <ol style="list-style-type: none"> 1) Define a properties file (e.g., <code>update.properties</code>) 2) Add the following default content: <pre>container.instance.name=instancename wizard.mode=update</pre> <p><u>Run Silent Configuration</u> The "Configure Container Instance Wizard (Silent Update)" properties file accepts the</p>

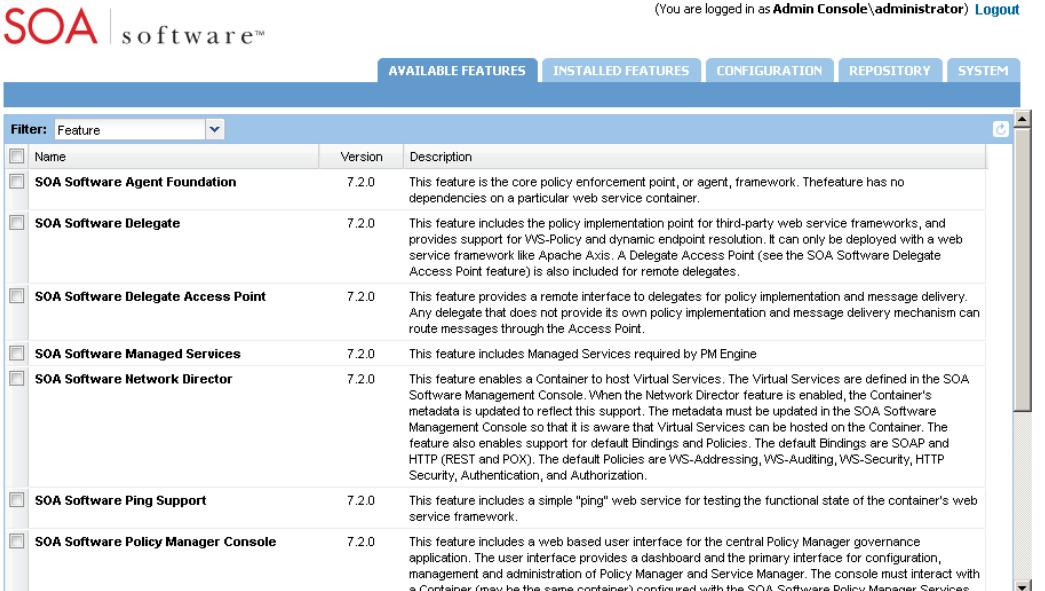
Apply SOA Software Platform 7.2 Silent Update (Existing Installation)

	<p>following system properties which together are used to perform the silent update:</p> <ol style="list-style-type: none"> 1. silent (If True, silent configuration will be performed) 2. properties (location on filesystem of property file to be used for configuration) <p>Windows:</p> <pre>\sm70\bin>startup.bat configurator "-Dsilent=true" "-Dproperties=<property file directory location>/update.properties"</pre> <p>UNIX:</p> <pre>\sm70\bin>startup.sh configurator -Dsilent=true -Dproperties=opt/<property file directory location>/update.properties</pre>
6.	Run the silent update.
7.	<p>Perform the following prerequisite steps before launching the SOA Software Administration Console</p> <ul style="list-style-type: none"> • Deploy Database Driver—Before performing the database configuration in the SOA Software Administration Console, verify that a database driver for the database used with the current SOA Container configuration is deployed to the c:\sm70\instances\<container instance>\deploy folder. If a database driver is not deployed, copy the database driver to the \deploy directory. Refer to the "Appendix B: Database Drivers" for a list of supported database drivers. • Clear Browser Cache—Before launching the SOA Software Administration Console, clear the browser cache. This is necessary to ensure that user interface changes included in the SOA Software Platform 7.2 update(s) display properly. • Manually Installing Policy Manager Schemas—If you have a requirement to manually install the SOA Software Platform schemas, contact SOA Software Customer Support prior to beginning this installation to obtain a series of schema installation scripts and additional instructions.
8.	<p>After the update is complete, start the updated SOA Container Instance.</p> <p>Start Process in Windows</p> <p>Navigate to sm70\bin and type startup <instance name></p> <p>Start Process as Windows Service</p> <p>Launch Program Group (Settings /Control Panel/Administrative Tools/Services)</p> <p>Select SOA Software Container Instance - Note that the instance name is displayed as the Container Key.</p> <p>From "Actions" menu, select Start.</p> <p>Start Process in UNIX</p> <p>Navigate to sm70/bin and type startup.sh <instance name></p> <p>Start Process in UNIX (Background)</p> <p>Navigate to sm70/bin and type startup.sh <instance name> -bg</p>

Apply SOA Software Platform 7.2 Silent Update (Existing Installation)

<p>9.</p>	<p>Users that will not be utilizing the SOA Software Administration Console can skip the remainder of this procedure.</p>
<p>10.</p>	<p>Launch the "SOA Software Administration Console" for the updated SOA Container Instance:</p> <p>Enter: <code>http://<hostname>:<port>/admin</code></p> 
<p>Figure 2-8: SOA Software Administration Console—Login</p>	
<p>11.</p>	<p>Select the "Admin Console" domain, enter the "Username" and "Password," and click Login. The SOA Software Administration Console launches and displays the "Available Features" tab.</p>

Apply SOA Software Platform 7.2 Silent Update (Existing Installation)

	 <p>Figure 2-9: SOA Software Administration Console—Available Features Tab</p>
12.	<p>If you have previously installed the "SOA Software Policy Manager Services" feature, verify if additional schemas must be installed using the "Manage Schemas Wizard."</p> <p>To perform this task, in the SOA Software Administration Console, click the "Configure" tab. In the "Configuration Actions" section click "Manage Schemas." The "Manage Schemas Wizard" launches and displays the "Install Schemas" screen. In the "Available Schemas" section, select the checkbox of the available Policy Manager schema and click "Finish."</p> <hr/> <p>Note: If you have not previously installed the "SOA Software Policy Manager Services" feature, skip this section and refer to "Chapter 1: Installing and Configuring SOA Software Platform > Step 5: Install Policy Manager Features." Complete the procedure. During the database and schemas configuration process select all "Available" schemas on the "Manage Schemas Wizard" screen.</p> <hr/>
22.	<p>After the configuration tasks are complete, navigate to the "Repository" tab and verify that the repository for the installed update is present. If it is not, click Refresh  to update the repository.</p>
23.	<p>As a final step, navigate to the "System" tab and click Restart.</p>
13.	<p>After the configuration tasks are complete, navigate to the "System" tab and click Restart.</p>
14.	<p>The update process is now complete.</p>

ROLLBACK UPDATE

The "Configure Container Instance Wizard" includes a Rollback option that allows you to rollback updates to the previous snapshot. Note that the SOA Container Instance must be stopped prior completing the rollback process. To rollback an SOA Software Platform Update, perform the following steps:

To Rollback an Update

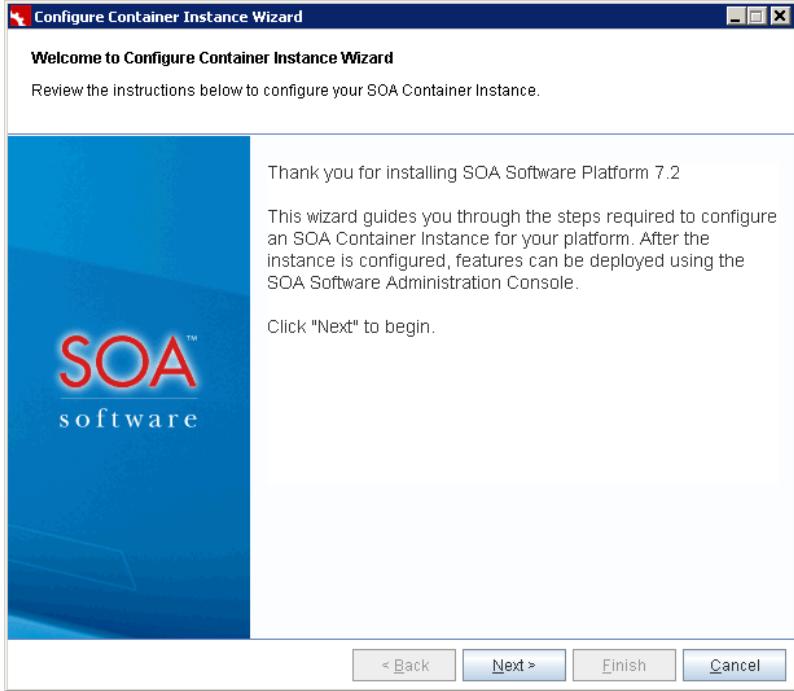
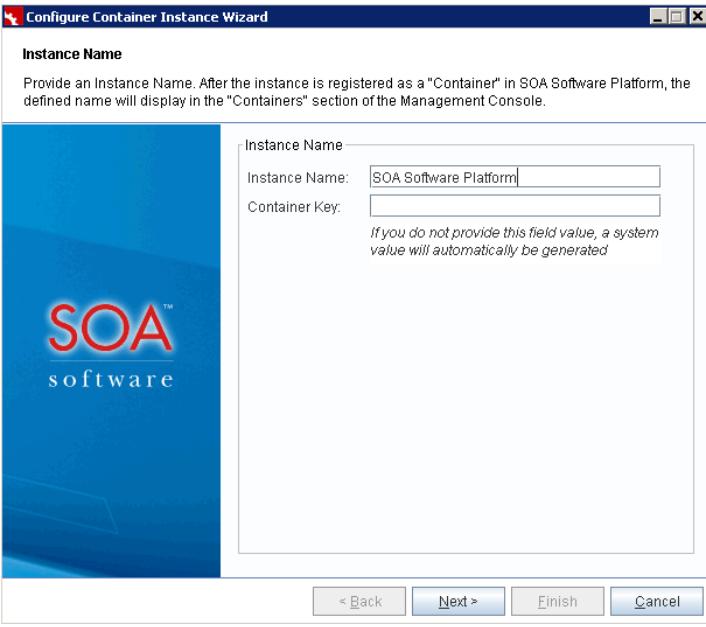
Step	Procedure
1.	<p>Launch the "Configure Container Instance Wizard" and enter the SOA Container Instance Name that includes an update you would like to rollback.</p> <p>Two methods can be used to launch the "Configure Container Instance Wizard."</p> <ol style="list-style-type: none"> 1) Launch from the SOA Software Platform Program Group. <p>Click the Start menu, navigate to the SOA Software Platform Program Group, and click Configure Container Instance.</p> <ol style="list-style-type: none"> 2) Perform a manual start: <p>Navigate to the SOA Software Platform Release Directory <code>c:\sm70\bin</code> and enter:</p> <pre>startup configurator</pre> <p>The "Welcome to Configure Container Instance Wizard" screen displays. Review the information and click Next to continue.</p> 

Figure 2-10: Configure Container Instance Wizard—Welcome to Configure Container Instance

To Rollback an Update

Step	Procedure
2.	<p>The "Instance Name" screen displays. Here you specify the name of the "SOA Software Container Instance" that includes an update you would like to rollback.</p> 
3.	<p>Enter the Container Instance Name and click Next to continue.</p> <hr/> <p>Note: To find the Container Instance Name, navigate to the <code>sm70/instances</code> folder and view the instances currently defined. Note that the Container Instance Name is case sensitive.</p> <hr/> <p>The "Instance Already Exists" screen displays. To rollback an update, click the Rollback radio button, select one update from the listing to rollback to the previous snapshot, and click Next.</p> <hr/> <p>Note: You must run the "Configure Container Instance Wizard" for each rollback you would like to perform.</p>

To Rollback an Update

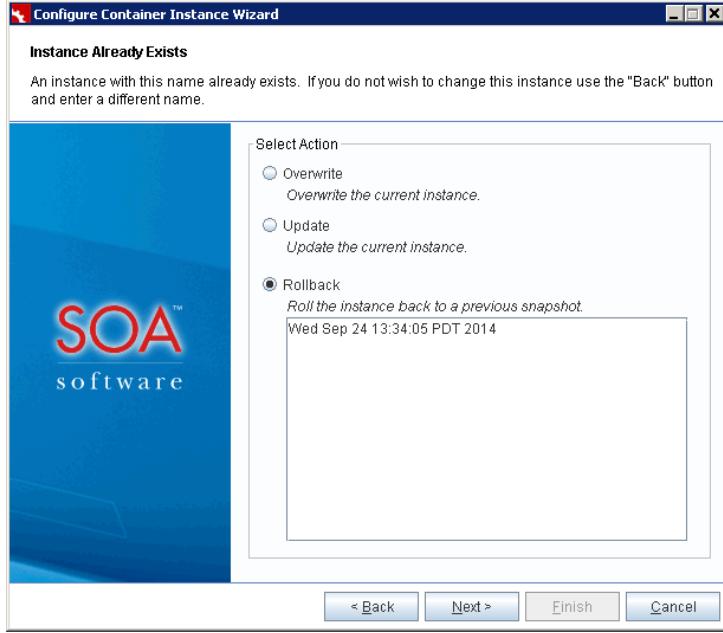
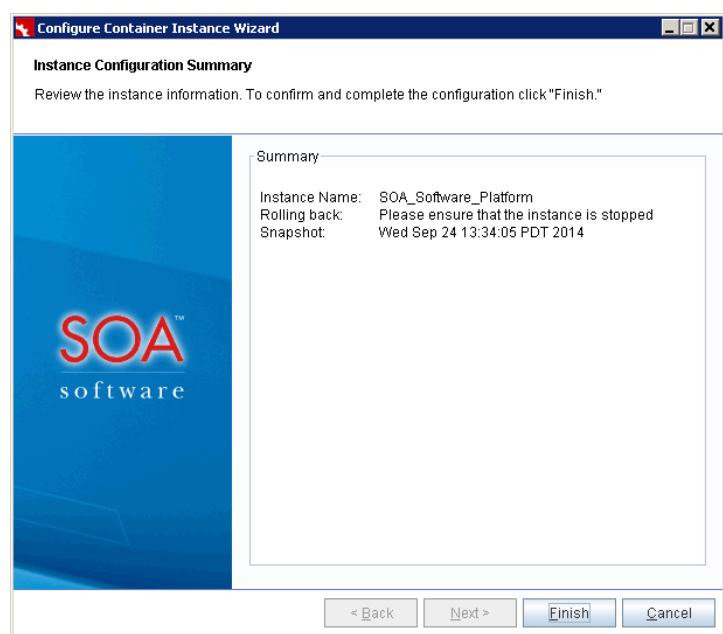
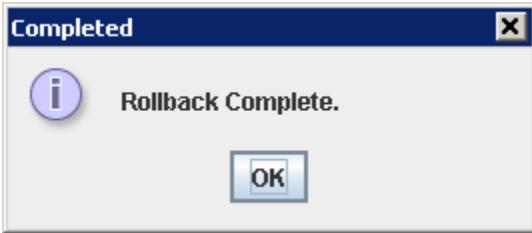
Step	Procedure
	 <p>Configure Container Instance Wizard</p> <p>Instance Already Exists</p> <p>An instance with this name already exists. If you do not wish to change this instance use the "Back" button and enter a different name.</p> <p>Select Action:</p> <ul style="list-style-type: none"> <input type="radio"/> Overwrite Overwrite the current instance. <input type="radio"/> Update Update the current instance. <input checked="" type="radio"/> Rollback Roll the instance back to a previous snapshot. <p>Wed Sep 24 13:34:05 PDT 2014</p> <p>< Back Next > Finish Cancel</p>
4.	<p>The "Instance Configuration Summary" screen displays. To complete the rollback, click Finish. Note that the SOA Container Instance must be stopped prior to applying the rollback.</p>  <p>Configure Container Instance Wizard</p> <p>Instance Configuration Summary</p> <p>Review the instance information. To confirm and complete the configuration click "Finish."</p> <p>Summary</p> <p>Instance Name: SOA_Software_Platform Rolling back: Please ensure that the instance is stopped Snapshot: Wed Sep 24 13:34:05 PDT 2014</p> <p>< Back Next > Finish Cancel</p>

Figure 2-12: Instance Already Exists—Rollback

To Rollback an Update

Step	Procedure
5.	<p>The SOA Container update process begins and a progress indicator displays. After the update process is complete the "Rollback Complete" dialog displays and indicates the number of bundles that have been updated.</p> 
6.	<p>Click OK on the "Rollback Complete" dialog. The "Configure Container Instance Wizard" closes.</p>
7.	<p>Start the updated SOA Container.</p>
	<p><u>Start Process in Windows</u></p>
	<p> Navigate to <code>sm70\bin</code> and type <code>startup <instance name></code></p>
	<p><u>Start Process as Windows Service</u></p>
	<p> Launch Program Group (Settings /Control Panel/Administrative Tools/Services)</p>
	<p> Select SOA Software Container Instance - Note that the instance name is displayed as the Container Key.</p>
	<p> From "Actions" menu, select Start.</p>
	<p><u>Start Process in UNIX</u></p>
	<p> Navigate to <code>sm70/bin</code> and type <code>startup.sh <instance name></code></p>
	<p><u>Start Process in UNIX (Background)</u></p>
	<p> Navigate to <code>sm70/bin</code> and type <code>startup.sh <instance name> -bg</code></p>

Chapter 3: Installing and Configuring Network Director

OVERVIEW

The Network Director feature enables a Container to host Virtual Services. The Virtual Services are defined in the SOA Software Management Console. When the Network Director feature is enabled, the Container's metadata is updated to reflect this support. The metadata must be updated in the SOA Software Management Console so that it is aware that Virtual Services can be hosted on the Container. The feature also enables support for default Bindings (SOAP 1.1, SOAP 1.2, HTTP, POX, XML, and Messaging) and Policies that are part of the Policy Manager default installation. This chapter provides instructions for configuring a Network Director container instance, and installing and configuring the SOA Software Network Director feature.

Note: This procedure assumes that SOA Software Platform has been installed, and SOA Software Platform Updates outlined in "Chapter 1: Installing and Configuring SOA Software Platform > Step 2: Install SOA Software Platform Updates" or "Chapter 2: Installing Updates to Existing SOA Software Platform Installation" have already been installed.

STEP 1: CONFIGURE NETWORK DIRECTOR CONTAINER INSTANCE

This section provides instructions for using the "Configure Container Instance Wizard" to configure a Network Director Container Instance. GUI and Silent configuration instructions are provided.

Configure Network Director Container Instance (GUI)

The following procedure uses the "Configure Container Instance Wizard" to create a Network Director Container Instance.

To Configure a Network Director Container Instance

Step	Procedure
1.	<p>1. Navigate to the SOA Software Platform release directory <code>c:\sm70\bin</code> and enter: <code>startup configurator</code></p> <p>The "Welcome to Configure Container Instance Wizard" screen displays. Review the information and click Next to continue.</p>

To Configure a Network Director Container Instance

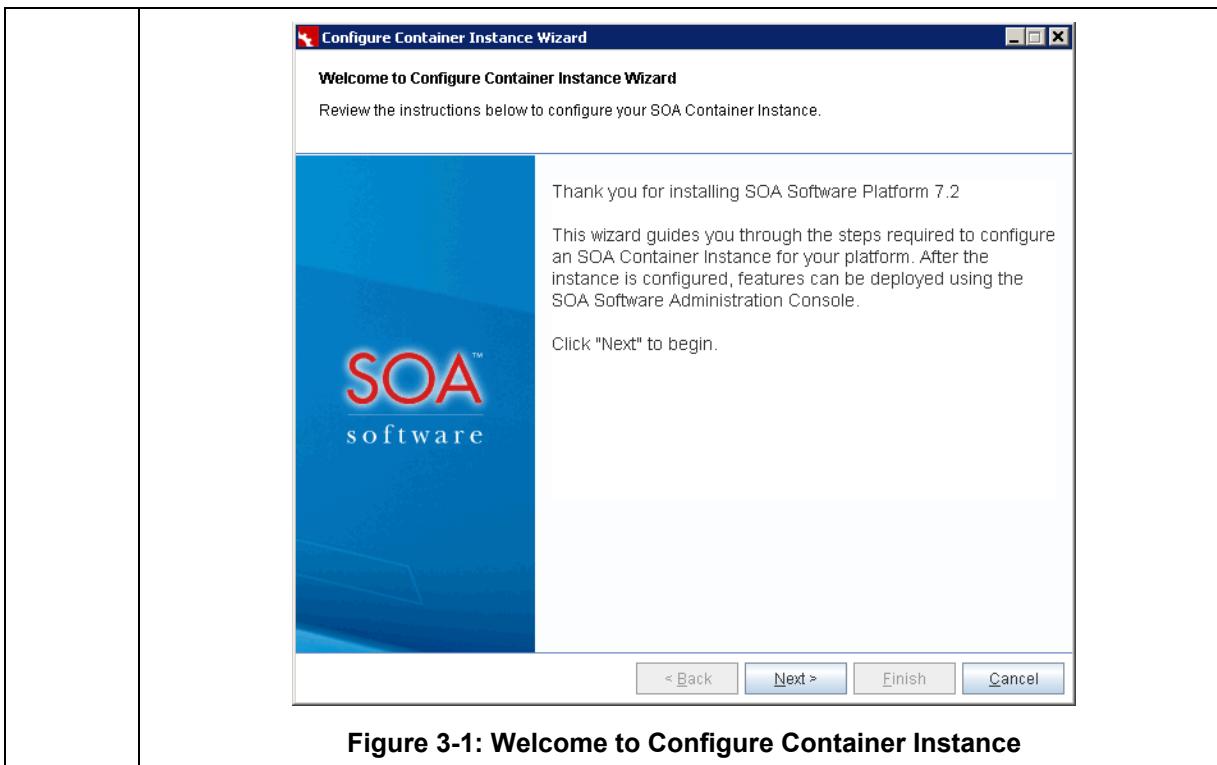
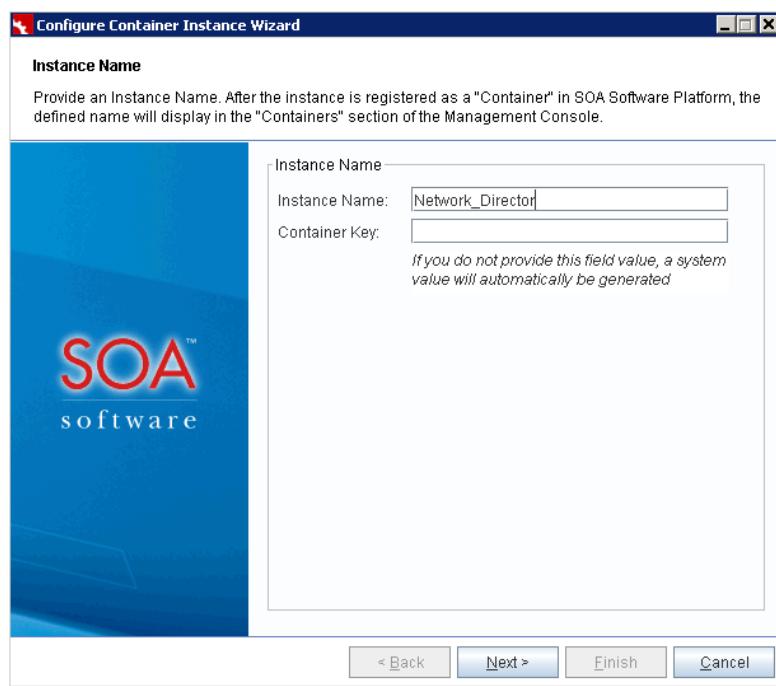
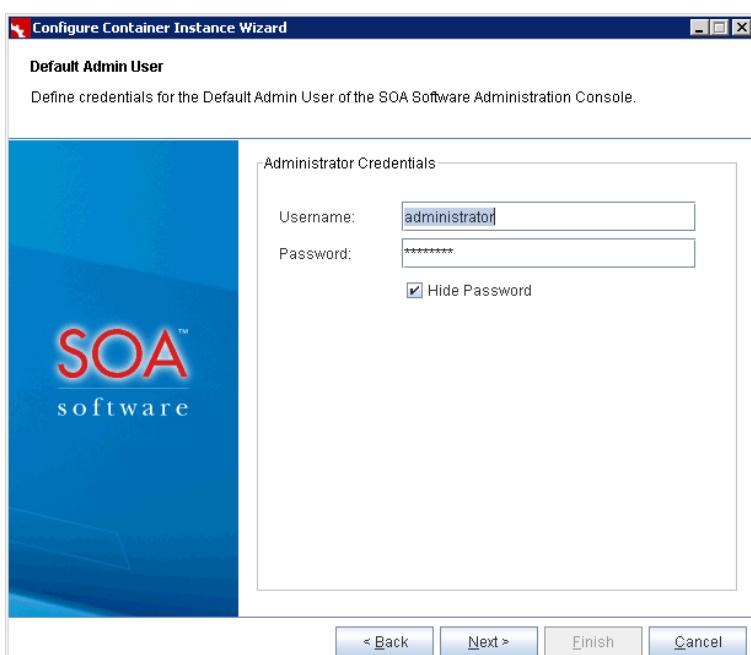


Figure 3-1: Welcome to Configure Container Instance

2. The "Instance Name" screen displays. Here you specify the name of the container instance. The instance name should be unique and easily identifiable (e.g., ND or Network Director). The instance name will display in the browser tab of the SOA Software Administration Console. Enter your container instance name and click **Next** to continue.



To Configure a Network Director Container Instance

	Figure 3-2: Instance Name—Standalone Deployment
3.	<p>The "Default Admin User" screen displays. Define the "Username" and "Password" credentials of the administrator that will be using the SOA Software Administration Console.</p> <p>The "Password" field includes a default password that can be used to log into the SOA Software Administration Console. The "Hide Password" checkbox allows you to display the password as encrypted or unencrypted. To view the default password, uncheck the "Hide Password" checkbox. Use the default password to log into the SOA Software Administration Console, or enter a new password. After entering the credential information, click Next to continue.</p> 
4.	<p>The "Instance Configuration Options" screen displays. Here you will select the "Standalone Deployment" option.</p>

To Configure a Network Director Container Instance

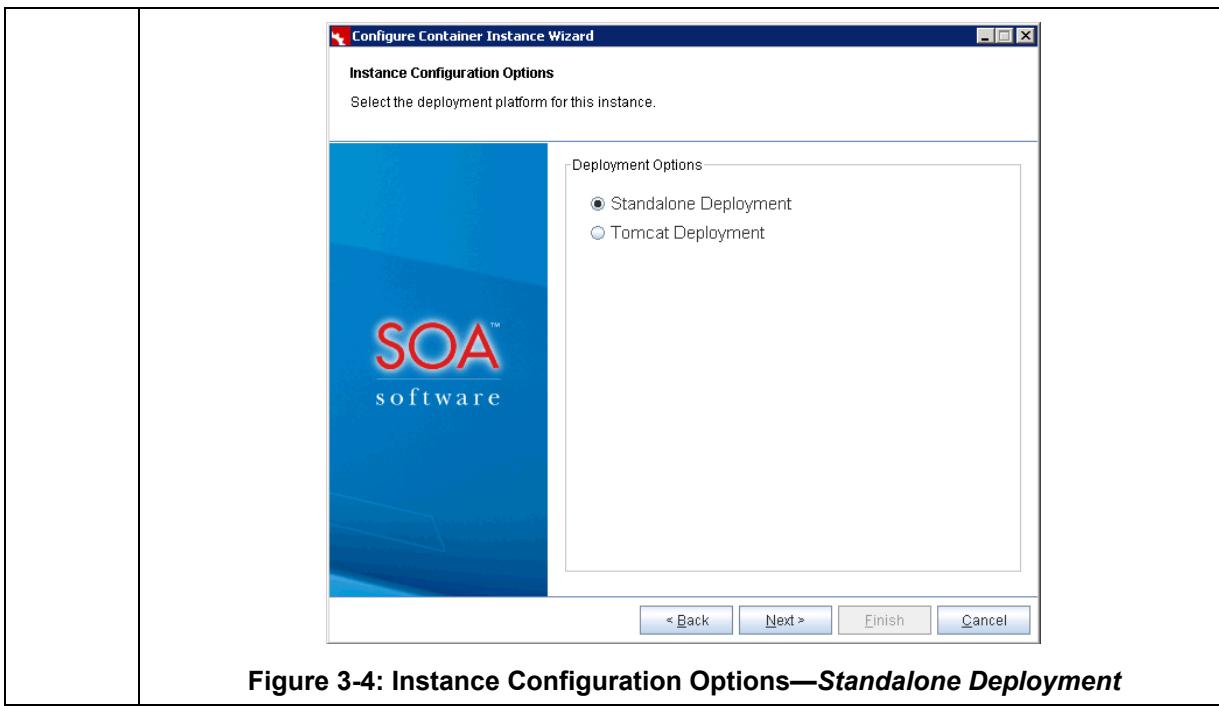


Figure 3-4: Instance Configuration Options—Standalone Deployment

5. Select "Standalone Deployment." The "Default HTTP Listener" screen displays. Set the default HTTP Port and Host IP Address for this instance. This listener configuration will be used as the SOA Software Administration Console address.

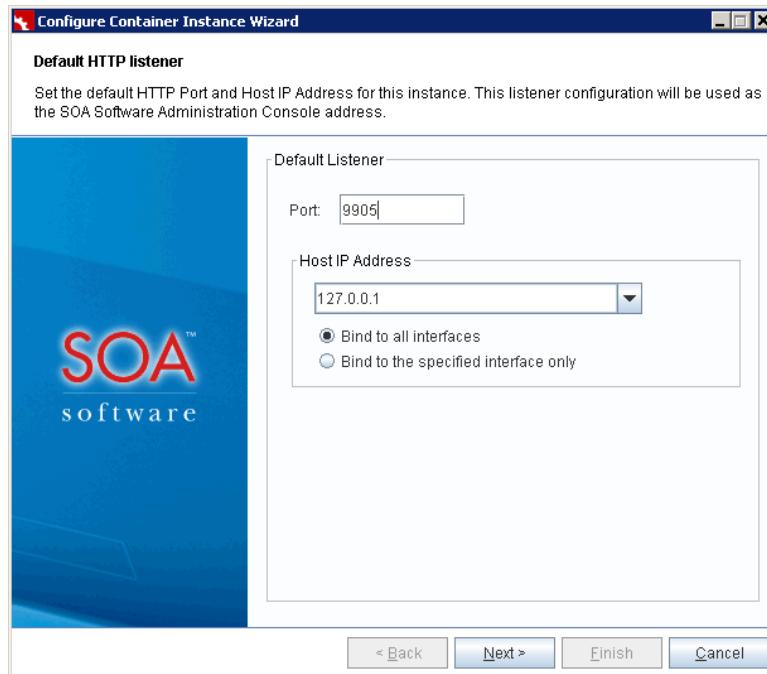


Figure 3-5: Default HTTP Listener—Standalone Deployment

Default HTTP Listener

To Configure a Network Director Container Instance

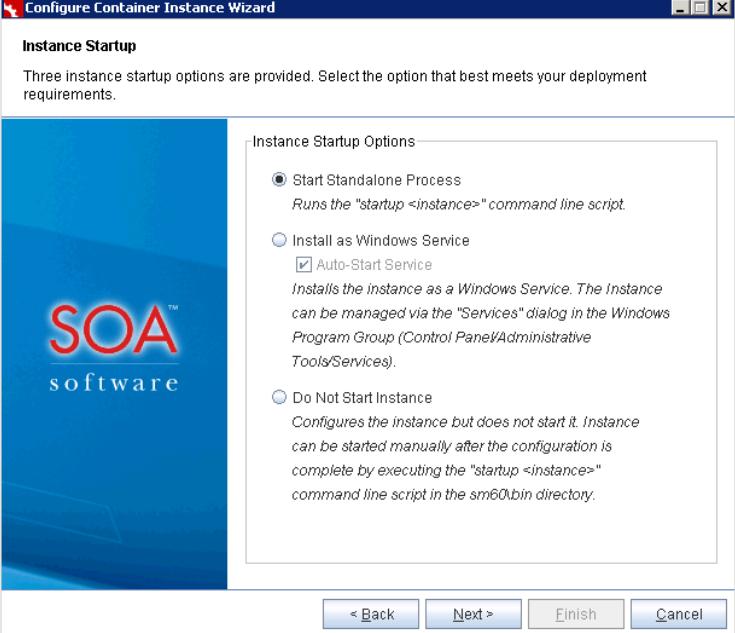
	<ul style="list-style-type: none"> Port—Represents the default HTTP Port. <p><u>Host IP Address:</u></p> <p>Select the Host IP Address from the drop-down list box and an interface binding option:</p> <ul style="list-style-type: none"> Bind to all interfaces—if you select this option, the listener binds to the 0.0.0.0 address. "localhost" or any other valid IP for the machine can be used to connect to the client/browser. Bind to a specific interface—if you select this option, the selected host name is used to connect to the client/browser. <p>The Default HTTP Listener information is used to compose the SOA Software Administration Console URL as follows:</p> <pre>http://<hostname>:<port>/admin/</pre> <p><i>Note: The trailing forward slash is required in the Admin Console URL (i.e., admin/).</i></p>
6.	<p>Click Next to continue. The "Instance Startup" screen displays. Three instance startup options are provided.</p> <ul style="list-style-type: none"> Start Standalone Process—Runs the "startup <instance>" command line script located in the sm70\bin directory. Install as Windows Service—Installs the instance as a Windows Service. The Instance can be managed via the "Services" dialog in the Windows Program Group (Control Panel/Administrative Tools/Services). Do Not Start Instance—Configures the instance but does not start it. Instance can be started manually after the configuration is complete by executing the "startup <instance>" command line script in the sm60\bin directory. 

Figure 3-6: Instance Setup—Standalone Deployment

Click the radio button of the startup option you would like to use for the current

To Configure a Network Director Container Instance

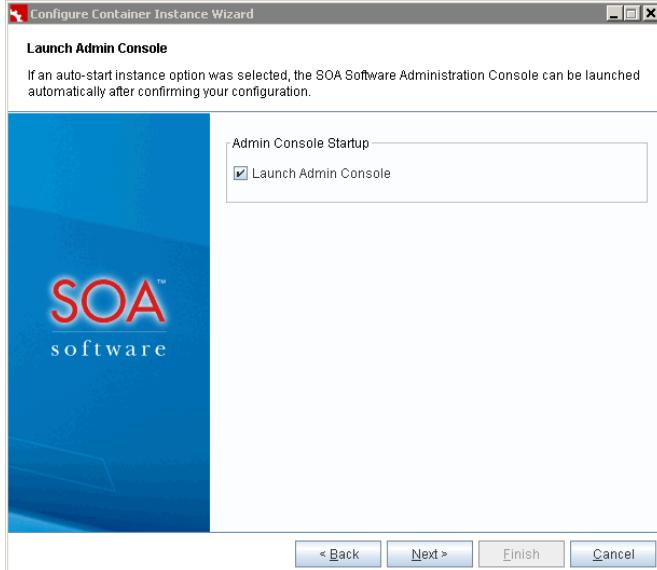
	<p>container instance, and click Next to continue.</p> <hr/> <p>Note: The "Instance Startup" screen does not display on UNIX systems because a manual startup is required. Container Startup instructions are provided later in this procedure</p> <hr/>
7.	<p>If you select an auto-start option, the SOA Software Administration Console can be launched automatically after the container configuration is complete. This option is enabled by default. Verify whether you would like auto-start enabled or disabled, then click Next to continue.</p> 
8.	<p>The "Summary" screen displays. Review the summary information. To confirm, click Finish.</p>

Figure 3-7: Launch Admin Console—Standalone Deployment

To Configure a Network Director Container Instance

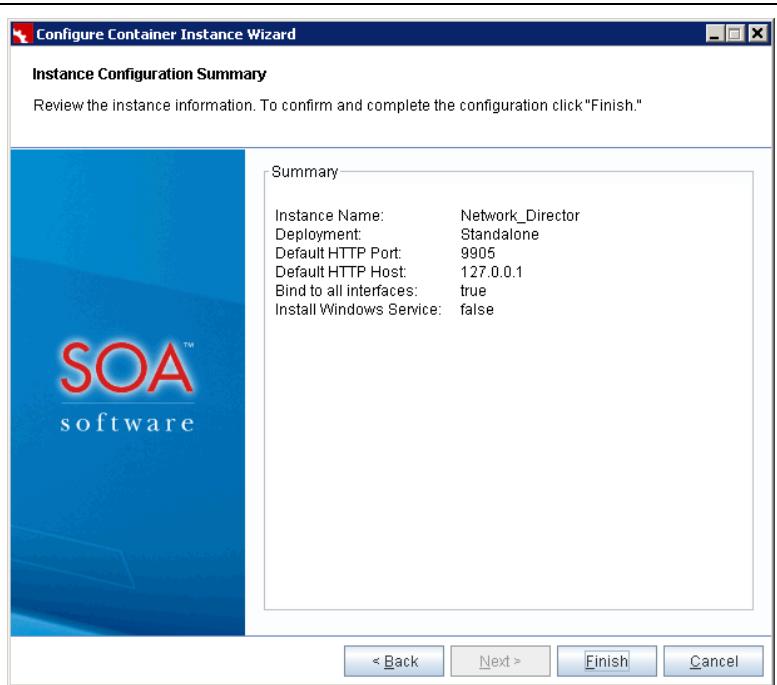


Figure 3-8: Instance Configuration Summary—Standalone Deployment

This completes the container configuration process.

	<p>8. If you selected the "Do Not Start Instance" option, the following methods can be used to start a container instance:</p> <p><u>Start Process in Windows</u> Start—Navigate to <code>sm70\bin</code> and type <code>startup <instance name></code></p> <p><u>Start Process as Windows Service</u> Launch Program Group (Settings /Control Panel/Administrative Tools/Services). Select SOA Software Container Instance - Note that the instance name is displayed as the Container Key.</p> <p><u>Start Process in UNIX</u> Start—Navigate to <code>sm70/bin</code> and type <code>startup.sh <instance name></code></p> <p><u>Start Process in UNIX (Background)</u> Start—Navigate to <code>sm70/bin</code> and type <code>startup.sh <instance name> -bg</code></p> <p>9. Perform the following prerequisite steps before launching the SOA Software Administration Console:</p> <ul style="list-style-type: none"> • <u>Deploy Database Driver</u>—Before performing the database configuration in the SOA Software Administration Console, verify that a database driver for the database used with the current SOA Container configuration is deployed to the <code>c:\sm70\instances\<container instance>\deploy</code> folder. If a database driver is not deployed, copy the database driver to the <code>\deploy</code> directory. Refer to "Appendix B:
--	---

To Configure a Network Director Container Instance

	<p>Database Drivers" for a list of supported database drivers.</p> <ul style="list-style-type: none"> • <u>Clear Browser Cache</u>—Before launching the SOA Software Administration Console, clear the browser cache. This is necessary to ensure that user interface changes included in the Policy Manager update(s) display properly. • <u>Manually Installing Policy Manager Schemas</u>—If you have a requirement to manually install the Policy Manager schemas, contact SOA Software Customer Support prior to beginning this installation to obtain a series of schema installation scripts and additional instructions.
10.	If the "Launch Admin Console" checkbox is selected on the "Launch Admin Console" screen, the SOA Software Administration Console will launch automatically. If you selected "Do Not Start Instance," refer to the "Launch SOA Software Administration Console" section for instructions.

Configure Network Director Container Instance (Silent Configuration)

This section provides instructions on how to configure an automated configuration properties file that is used to create a new Network Director Container Instance.

To Configure a Network Director Instance (Silent Configuration)

Step	Procedure
1.	<p>The "Configure Container Instance Wizard" can be set up to run in an automated mode (i.e., silent). This is done by defining a properties file and pre-defining a set of property values to be used by the "Configure Container Instance Wizard" to automatically configure a Container instance.</p> <ol style="list-style-type: none"> 1. Define a properties file (e.g., myprops.properties) 2. Add the following default content: <pre>container.instance.name=instancename credential.username = administrator credential.password = password default.host=localhost default.port=9905</pre> <p><u>Base Properties</u> The following properties are used for Standalone deployments.</p> <p><code>container.instance.name</code>—Name of the Container. <code>credential.username</code>—Username for logging into the SOA Software Administration Console. <code>credential.password</code>—Password for logging into the SOA Software Administration Console. <code>default.host</code>—Host for the Container Instance. <code>default.port</code>—Port for the Container Instance.</p> <p><u>Running Silent Configuration</u> The "Configure Container Instance Wizard (Silent Configuration)" properties file accepts the following system properties which together are used to perform a silent</p>

To Configure a Network Director Instance (Silent Configuration)

	<p>configuration:</p> <ol style="list-style-type: none"> 1. silent (If True, silent configuration will be performed) 2. properties (location on filesystem of property file to be used for configuration) <p><u>Windows:</u></p> <pre>\sm70\bin>startup.bat configurator "-Dsilent=true" "-Dproperties=C:/<property file directory location>/myprops.properties"</pre> <p><u>UNIX</u></p> <pre>\sm70\bin>startup.sh configurator -Dsilent=true -Dproperties=/export/home/username/<property file directory location>\myprops.properties</pre>
2.	<p>Perform the following prerequisite steps before launching the SOA Software Administration Console:</p> <ul style="list-style-type: none"> • <u>Deploy Database Driver</u>—Before performing the database configuration in the SOA Software Administration Console, verify that a database driver for the database used with the current SOA Container configuration is deployed to the c:\sm70\instances\<container instance>\deploy folder. If a database driver is not deployed, copy the database driver to the \deploy directory. Refer to "Appendix B: Database Drivers" for a list of supported database drivers. • <u>Clear Browser Cache</u>—Before launching the SOA Software Administration Console, clear the browser cache. This is necessary to ensure that user interface changes included in the SOA Software Platform update(s) display properly. • <u>Manually Installing Policy Manager Schemas</u>—If you have a requirement to manually install the Policy Manager schemas, contact SOA Software Customer Support prior to beginning this installation to obtain a series of schema installation scripts and additional instructions.
3.	<p>Start the container instance. The following methods can be used to start a container instance:</p> <p><u>Start / Stop Process in Windows</u></p> <p>Start—Navigate to sm70\bin and type startup <instance name></p> <p><u>Start Process as Windows Service</u></p> <p>Launch Program Group (Settings /Control Panel/Administrative Tools/Services).</p> <p>Select SOA Software Container Instance - Note that the instance name is displayed as the Container Key.</p> <p><u>Start / Stop Process in UNIX</u></p> <p>Start—Navigate to sm70/bin and type startup.sh <instance name></p> <p><u>Start / Stop Process in UNIX (Background)</u></p> <p>Start—Navigate to sm70/bin and type startup.sh <</p> <p>—Navigate to sm70/bin and type shutdown.sh</p> <p><i>Refer to Appendix A: Start / Stop / Restart Container Instance for a complete list of</i></p>

To Configure a Network Director Instance (Silent Configuration)

	<i>container start/stop instructions.</i>
4.	The next step is to launch the SOA Software Administration Console. Refer to the "Launch SOA Software Administration Console" section.

STEP 2: LAUNCH SOA SOFTWARE ADMINISTRATION CONSOLE**To Configure a Container Instance (Silent Configuration)**

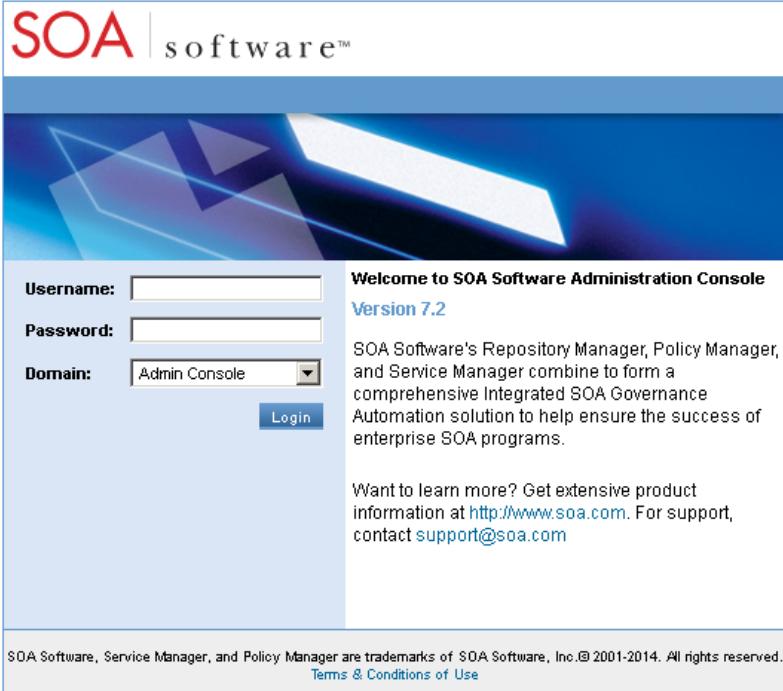
Step	Procedure
1.	<p>After successfully starting the container instance, deploying the database driver, and clearing the browser cache, launch the "SOA Software Administration Console" for the updated SOA Container Instance:</p> <p>Enter: <a href="http://<hostname>:<port>/admin">http://<hostname>:<port>/admin</p>  <p>Welcome to SOA Software Administration Console Version 7.2</p> <p>SOA Software's Repository Manager, Policy Manager, and Service Manager combine to form a comprehensive Integrated SOA Governance Automation solution to help ensure the success of enterprise SOA programs.</p> <p>Want to learn more? Get extensive product information at http://www.soa.com. For support, contact support@soa.com</p> <p>SOA Software, Service Manager, and Policy Manager are trademarks of SOA Software, Inc. © 2001-2014. All rights reserved. Terms & Conditions of Use</p>

Figure 3-9: SOA Software Administration Console—Login**STEP 3: INSTALL FEATURE (SOA SOFTWARE NETWORK DIRECTOR)**

This section provides a walkthrough for installing the "SOA Software Network Director" feature.

To Install SOA Software Network Director Feature

To Install SOA Software Network Director Feature

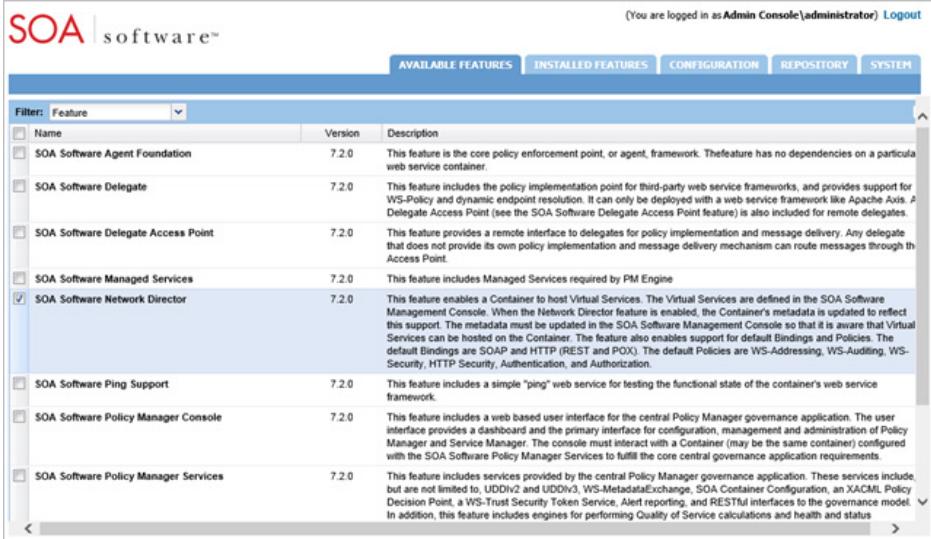
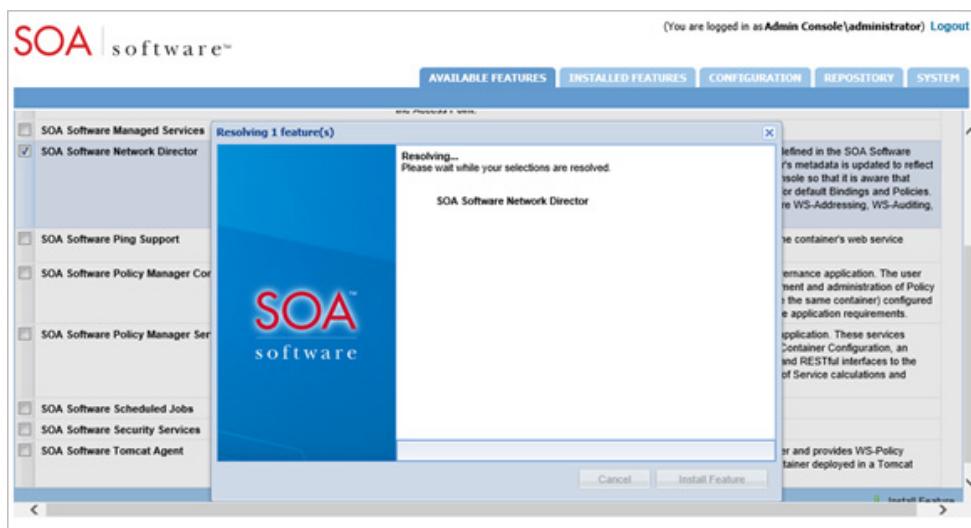
Step	Procedure
1.	<p>On the SOA Software Administration Console, click the "Available Features" tab. A list of available features displays. To select the "SOA Software Network Director" feature, click the checkbox next to the feature line item. After clicking the checkbox, the Install Feature button displays in focus.</p> 
2.	<p>To begin installing the selected features, click Install Feature. The feature installation wizard goes through several prerequisite steps to verify the installation. In the "Resolve" phase, the system determines all the bundle and package dependencies for the selected feature.</p> 

Figure 3-10: SOA Software Network Director Installation—Available Features Tab

To Install SOA Software Network Director Feature

3. After the "Resolve" phase is complete, a "Feature Resolution Report" is presented that includes a list of dependencies for the selected feature.



Figure 3-12: SOA Software Network Director Installation—Install Feature – Feature Resolution Report

4. To begin installing the feature click **Install Feature**. The "Installing..." status displays along with a progress indicator.

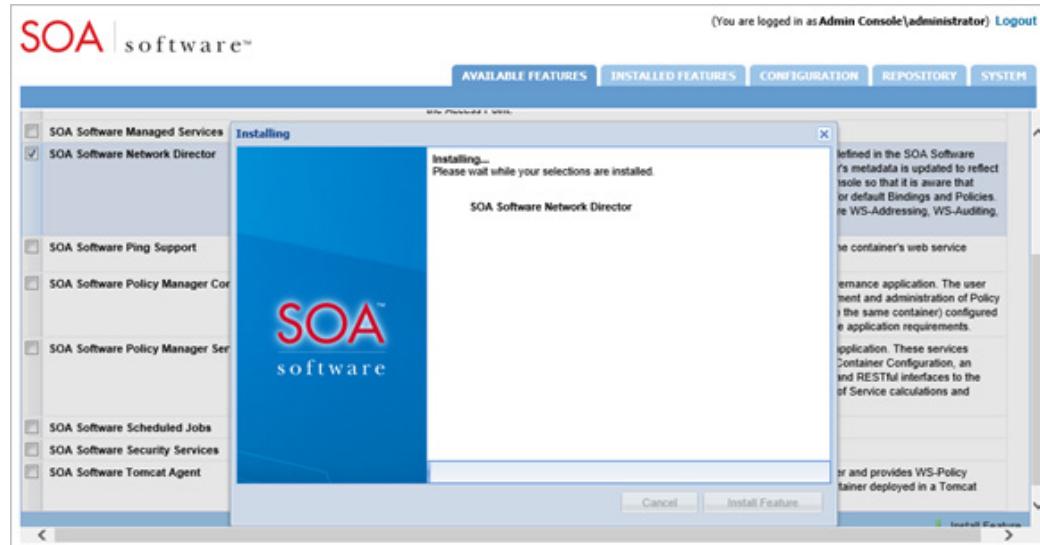


Figure 3-13: SOA Software Network Director Installation—Install Feature – Install In Progress

5. When the installation process is completed, the "Installation Complete" screen displays and the feature(s) being installed are removed from the listing under the "Available Features" tab and transitioned to the "Installed Features" tab.

To Install SOA Software Network Director Feature

	 <p>The screenshot shows the SOA software administration console interface. A central dialog box is titled "Installation Complete". It displays the message: "Your features have been installed and started. Click "Configure" to complete the deployment." Below this, it lists "Deployed: 1 selected feature(s), 70 required bundle(s), 2 optional bundle(s)". The "Available Features" tab is selected in the top navigation bar, showing a list of features like Name, SOA Software Agent Foundation, SOA Software Delegate, etc.</p>
6.	<p>After the installation is complete, the next step is to configure the feature. This is done by executing a series of one-time and/or repeatable tasks. Refer to "Configure Network Director" for information on feature configuration.</p>

STEP 4: CONFIGURE NETWORK DIRECTOR

After installing the "Network Director" feature via the "Available Features" tab on the SOA Software Administration Console a series of configuration tasks must be applied to the feature. Configuration tasks can be executed using two tracks. The first track can be started by clicking the "Configure" button on the "Installation Complete" screen at the end of the feature installation process. The second track allows you to resume the configuration at a later time by clicking **Cancel** on the "Installation Complete" screen and executing the "Complete Configuration" button in the "Pending Installation Tasks" section via the "Installed Features" tab.

Multiple configuration tasks are executed in a single stream using a wizard application. After the configuration process is complete, tasks that are "repeatable" are available via the "Configuration" tab and can be re-executed as needed.

Note: This section assumes a starting point of having launched the configuration wizard using either track. Tasks procedures are listed in sequential order.

To Begin Network Director Configuration

Step	Procedure

To Begin Network Director Configuration

1.	<p>Select one of the following configuration tracks, to begin the configuration process for the "Network Director" feature.</p> <ul style="list-style-type: none"> • <i>Available Features Tab:</i> Click Configure on the "Installation Complete" screen of the feature installation wizard. <p>OR</p> <ul style="list-style-type: none"> • <i>Installed Features Tab:</i> Click Complete Configuration in the "Pending Installation Tasks" section. <p>The first page of the "WS-MetaDataExchange Options" displays. This is the starting point for beginning the Network Director configuration.</p> <p>The following sections provide a walkthrough of each task in the configuration wizard for the Network Director feature.</p>
----	--

Configure WS-MetaDataExchange Options (Network Director)

The "WS-MetaDataExchange Options" screen allows you specify the URL of the Policy Manager "Metadata Exchange Service." Connecting to the "Metadata Exchange Service" enables communication between the current SOA Software Container instance and Policy Manager to retrieve key information (e.g., service hosting, database, etc.).

Specifying the "WS-MetaDataExchange" URL is a required installation task for the "SOA Software Network Director" feature.

In the Policy Manager 7.2 Management Console, the URL can be found by viewing the Access Point URL of the "Metadata Exchange Service" or by viewing the WSDL of the "Metadata Exchange Service" at <SOAP:address location>. For Network Director, the wsmex address you use should be the URL of the WS-MetaDataExchange service of the Policy Manager instance that is hosting the Network Director container.

To Configure WS-MetaDataExchange Options (Network Director)

Step	Procedure
1.	<p>Enter the "Metadata Exchange Service" URL in the field display: <code>http://<hostname>:<port>/wsmex</code></p> <p>After completing your entry, click Finish. The "Summary" screen displays.</p>

To Configure WS-MetaDataExchange Options (Network Director)

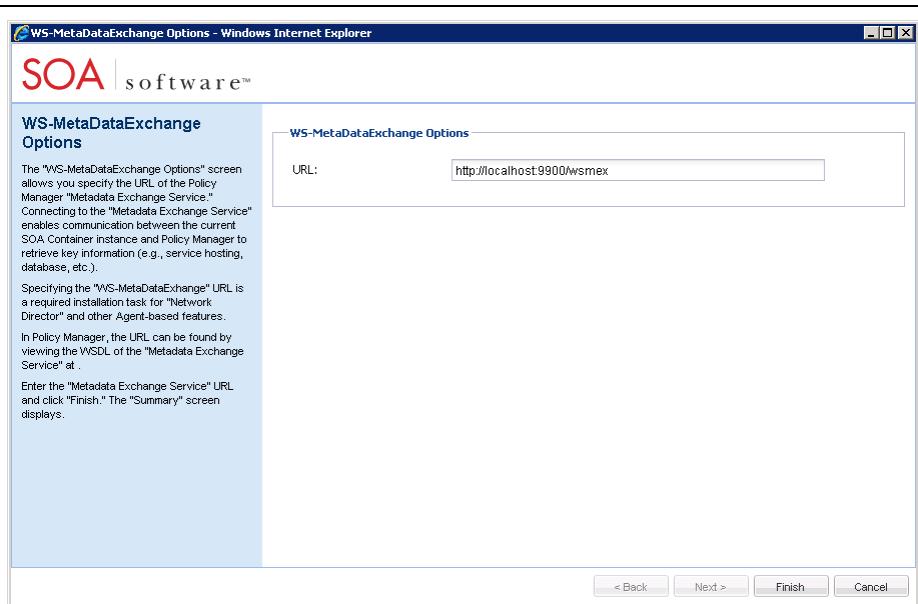


Figure 3-15: Configure WS-MetadataExchange Options Wizard (WS-MetaDataExchange Options)—Network Director

2. Review the summary information and click **Continue To Next Task**. The "Select Key Management Option" screen displays. See the "Manage PKI Keys" section for details on performing this task.

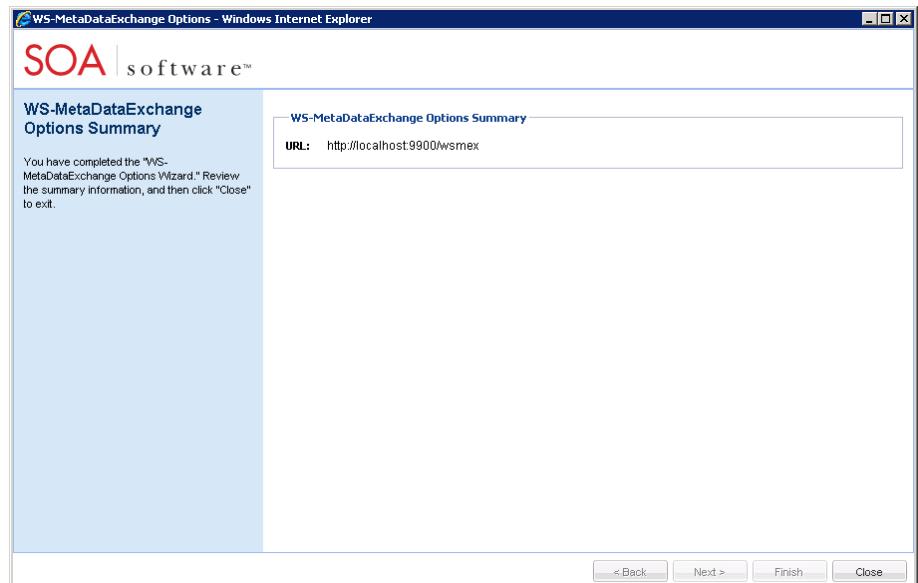


Figure 3-16: Configure WS-MetadataExchange Options Wizard (WS-MetaDataExchange Options Summary)—Network Director

Manage PKI Keys (Network Director)

This section provides instruction for configuring PKI keys for the current container.

To Configure PKI Keys

Step	Procedure
1.	<p>The "Manage PKI Keys Wizard" is executed as either an installation task or configuration action for the Network Director and various Agent features. The wizard allows you to configure the private key and certificate for the container when communicating with a governance console.</p> <p>The first screen that displays in the "Manage PKI Keys Wizard" is the "Select Key Management Options" screen. It is organized as follows:</p> <ul style="list-style-type: none"> • PKI Keys Details—Displays the "Public Key" that has been generated and assigned to the container. If keys have not been generated and assigned, the "None Found" message displays. • Certificate Details—Displays a summary of information for the certificate assigned to the current container. Assigned certificates can be generated or imported using this wizard. Certificate information presented includes Subject DN, Issuer DN, Serial Number, Effective Date, and Expiration Date. If a certificate has not been assigned, the "None Found" message displays. • Key Management Options—Provides functions for performing key and certificate management for the current container. Option categories include "Generate," "Import," "Export," and Delete. Available objects are displayed "in focus" and are based on the object's configuration "state." 
2.	<p>The "Generate PKI Keys and X.509 Certificate" screen allows you to generate PKI Keys and an X.509 certificate. PKI Keys (i.e., access keys) guarantee message integrity by</p>

Figure 3-17: Manage PKI Keys Wizard (Select Key Management Option)—Network Director

Select a "Key Management Option" and click **Next** to continue. The pre-selected option is the assigned default. The "Generate PKI Keys and X.509 Certificate" screen displays.

To Configure PKI Keys

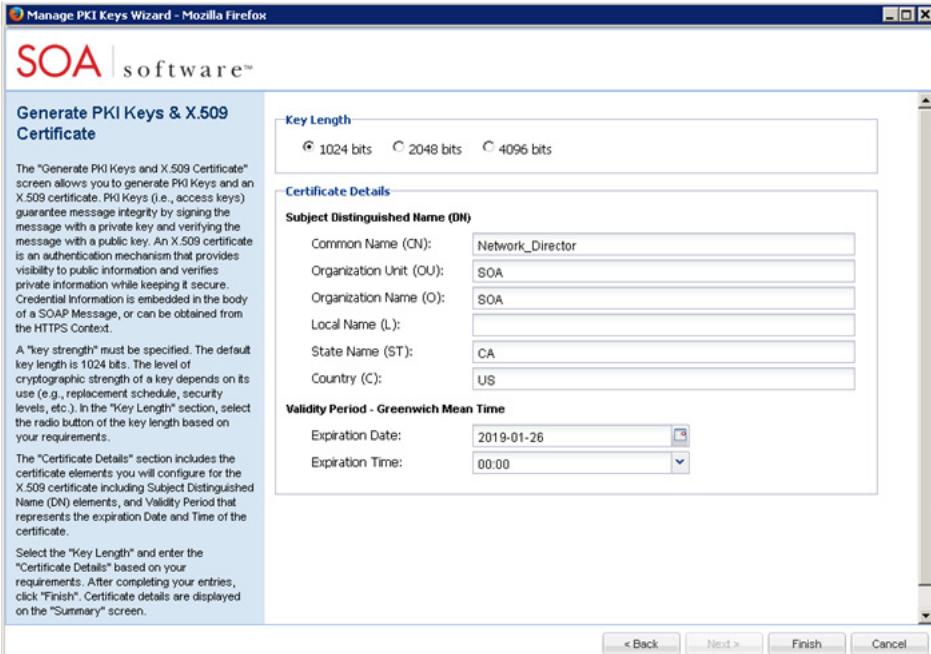
	<p>signing the message with a private key and verifying the message with a public key. An X.509 certificate is an authentication mechanism that provides visibility to public information and verifies private information while keeping it secure. Credential Information is embedded in the body of a SOAP Message, or can be obtained from the HTTPS Context.</p> <p>A "key strength" must be specified. The default key length is 1024 bits. The level of cryptographic strength of a key depends on its use (e.g., replacement schedule, security levels, etc.). In the "Key Length" section, select the radio button of the key length based on your requirements.</p> <p>The "Certificate Details" section includes the certificate elements you will configure for the X.509 certificate including Subject Distinguished Name (DN) elements, and Validity Period that represents the expiration Date and Time of the certificate.</p> <p>Select the "Key Length" and enter the "Certificate Details" based on your requirements. After completing your entries, click Finish. Certificate details are displayed on the "Summary" screen.</p> 
3.	<p>To continue with the Network Director click Finish. The "Summary" screen displays and presents a prompt to restart the system. Click OK to issue a restart.</p>

Figure 3-18: Manage PKI Keys Wizard (Generate PKI Keys & X.509 Certificate)—Network Director

To Configure PKI Keys

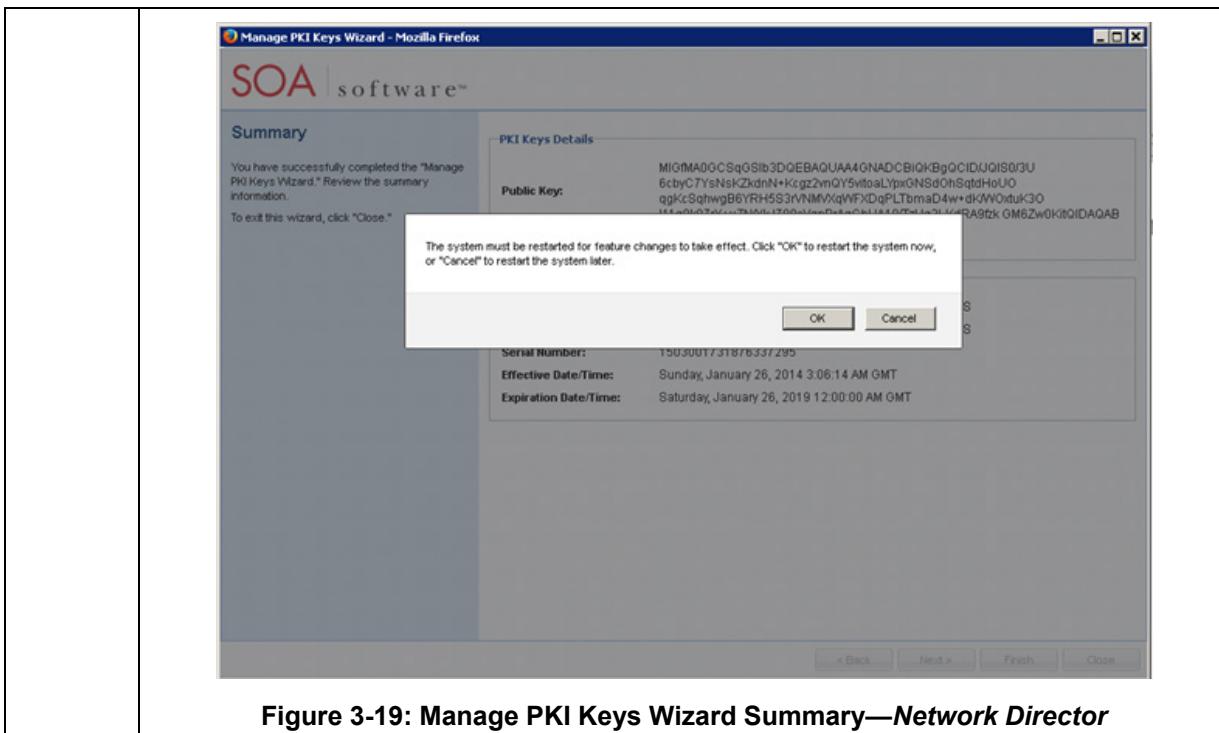


Figure 3-19: Manage PKI Keys Wizard Summary—Network Director

Completing the Configuration (Network Director)

The "Complete Configuration" screen displays a system restart progress indicator and allows you to log out of the SOA Software Administration Console after the system restart is complete.

To Complete the Configuration (Network Director)

Step	Procedure
1.	<p>The "Complete Configuration" task performs configuration operations associated with one or more "Feature" installations. Operations typically include starting components, setting property values, and initializing credentials.</p> <p>The system restart was initiated when Finish was clicked on the "Summary" screen. After the system restarts and initializes the installed features for use, click Close to log out of the SOA Software Administration Console.</p> <p>To exit the wizard and perform a system restart at a later time, click Close. Configuration changes are saved and the "Complete Configuration" task is available via the "Installed Features" tab in the "Pending Installation Tasks" section.</p>

To Complete the Configuration (Network Director)

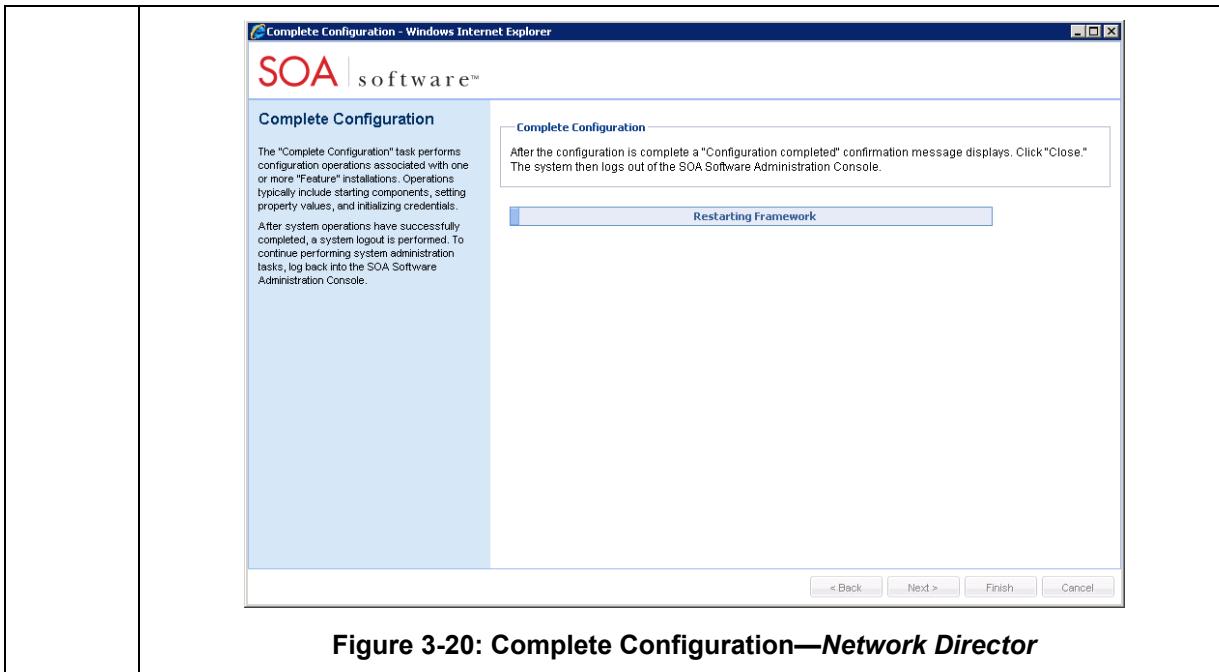


Figure 3-20: Complete Configuration—Network Director

Perform SOA Software Administration Console Login (Network Director)

After the system exits the SOA Software Administration Console, the "Login" screen displays. Select the "Admin Console" domain and click "Enter" to log back in and continue system administration activities.



Figure 3-21: SOA Software Administration Console—Login (Admin Console)

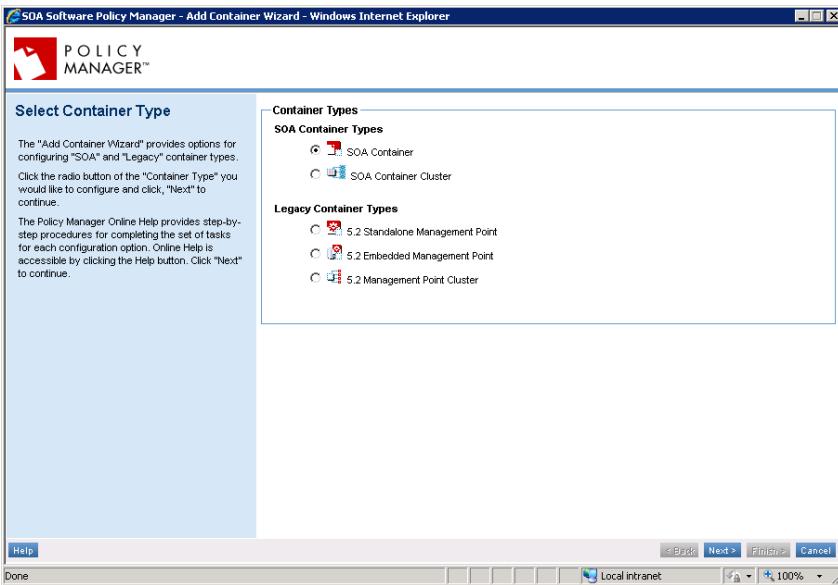
STEP 5: REGISTER NETWORK DIRECTOR CONTAINER

This section provides instructions on how to register the Network Director Container. This process involves configuring an SOA Container and Service Hosting.

To Register Network Director Container

Step	Procedure
1.	<p>After successfully installing and configuring the Network Director feature, the next step is to register the Network Director Container in Policy Manager "Management Console."</p> <p>Login to the Policy Manager "Management Console" and navigate to "Org > Containers." The "Containers Summary" screen displays.</p> <p>Click Add Container. The "Add Container Wizard" launches and the "Select Container Type" screen displays. In the "SOA Container Types" section click the "SOA Container" radio button.</p>

To Register Network Director Container

	 <p>Figure 3-22: Register Network Director—Add Container Wizard (Select Container Type)</p>
2.	<p>Click Next to continue. The "Specify Metadata Import Options" screen displays and is organized as follows:</p> <p>Metadata Options</p> <ul style="list-style-type: none"> • Metadata URL—This option is used to enter the URL address that represents the location where the Network Director Metadata will be retrieved. Computer Name / Port Number should be the Hostname and Port Number of Network Director. • Metadata Path—This option is used to enter the file system path of the metadata document. <p>To obtain a Metadata Document perform the following steps:</p> <ol style="list-style-type: none"> 1) Access the Metadata URL in any browser. 2) After accessing the URL in the browser, Right click on the page and select "View Page Source" 3) Save the opened page using the .xml format. <p>Authentication Options</p> <p>This section allows you to specify options for how to pass the credentials used to retrieve container metadata. Three options are available:</p> <ul style="list-style-type: none"> • Anonymous—This option does not pass user credentials to the container to retrieve its metadata. • Logged in User—This option passes the current logged in user's credentials to the container to retrieve its metadata. • Specify Credentials—This option passes the supplied credentials in the Username, Password, and Domain fields to the container to retrieve its metadata.

To Register Network Director Container

Configure a Metadata and Authentication option and click **Next** to continue.

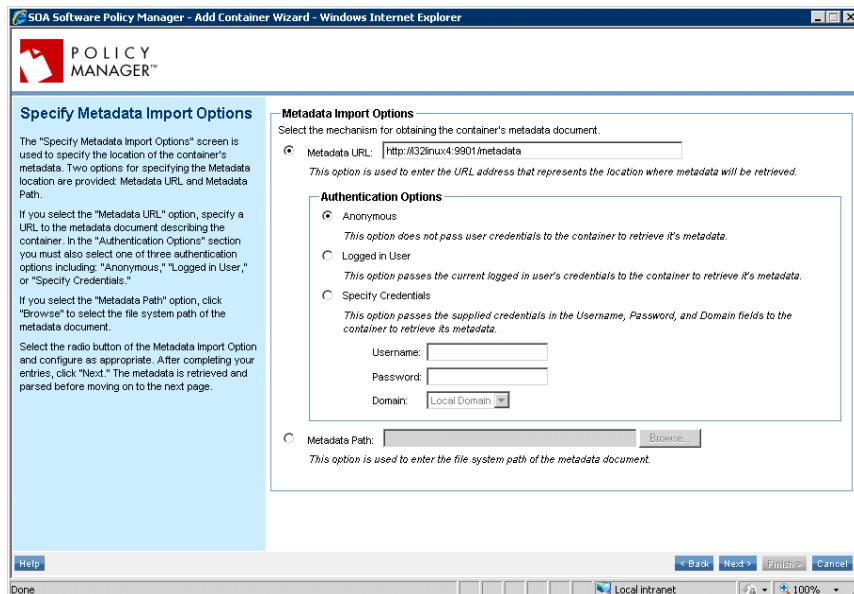


Figure 3-23: Register Network Director—Add Container Wizard (Specify Metadata Import Options)

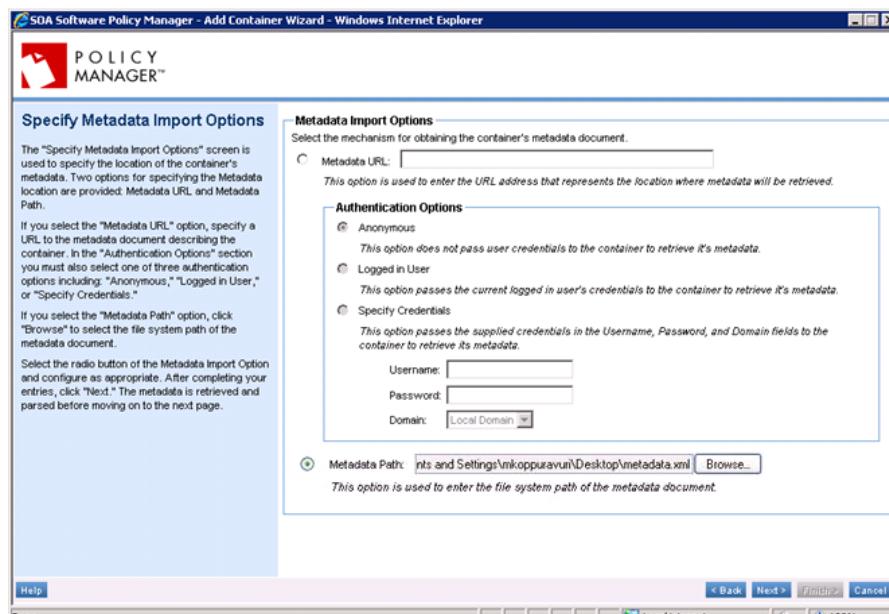


Figure 3-24: Register Network Director—Add Container Wizard (Specify Metadata Import Options – Metadata Path selected)

3. If the metadata contains a certificate that does not reside in the Policy Manager Trusted Certificate Authority store, you will receive the "X.509 Certificate Not Trusted" screen. Here you can add the current certificate to the Trusted Certificate Authority store, or you can manually add using the Import Trusted Certificate function in the "Configure > Security > Certificates > Trusted CA Certificates" section of the

To Register Network Director Container

	<p>"Management Console.</p> <p>Select "Yes" to add the certificate to the Policy Manager Trusted Certificate Authority store, and click Next. The "Specify Container Details" screen displays. Selecting "No" returns you to the "Select Container Type" screen.</p> <p>Click the "Yes" radio button, and click Next to continue.</p>
4.	<p>The "Container Details" screen displays.</p> <p>Each container definition needs an instance name and description to distinguish it from other container types, an encryption seed (i.e., Container Key) to ensure security when it is launched, and must be assigned to an Organization. The "Organization" represents the owner of the container. The screen is organized into two sections:</p> <p><u>Container Details</u></p> <ul style="list-style-type: none"> Type—Displays the container type. Container Key—A field display that is used to specify a custom container encryption key. If no custom key is specified, Policy Manager will auto-generate a key. Instance Name—A field display that allows you to specify an instance name for the container. Description—A field display that allows you to specify a description for the container. <p><u>Organization Tree</u></p> <ul style="list-style-type: none"> An "Organization Tree" that allows you to select the organization that represents the owner of the container.

To Register Network Director Container

	<p>Figure 3-26: Register Network Director—Add Container Wizard (Specify Container Details)</p>
5.	<p>Complete your entries and click Finish to continue. The "Add Container Wizard" configures the container and saves the information to the Policy Manager data repository. When the configuration process is complete, the "Completion Summary" screen displays.</p> <p>After you have reviewed the summary screen, click Close.</p>

To Register Network Director Container

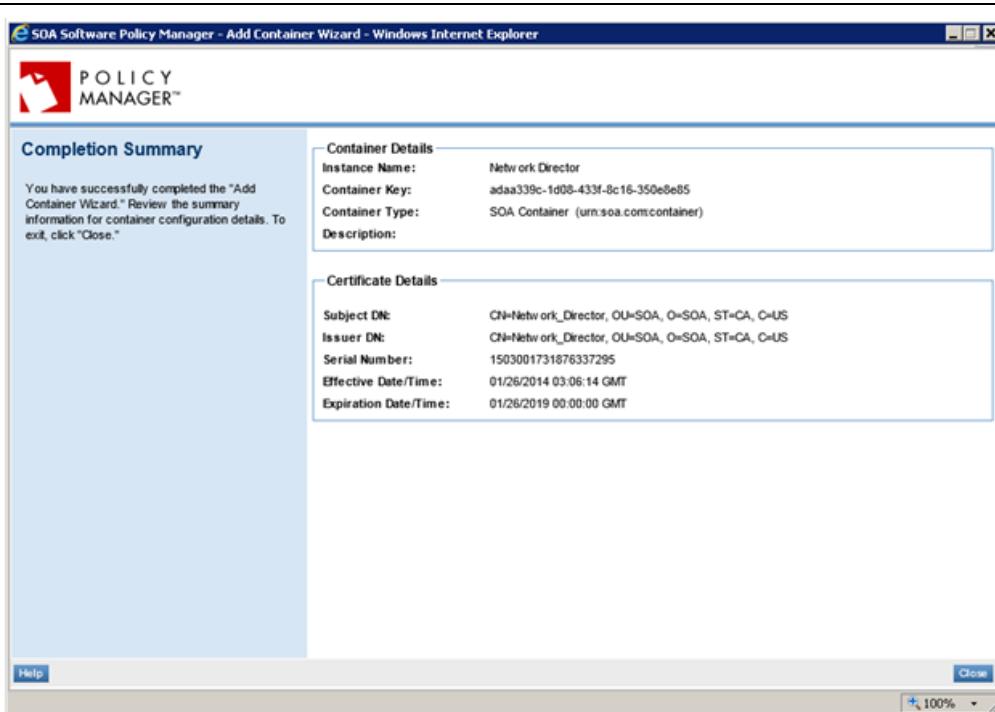


Figure 3-27: Register Network Director—Add Container Wizard (Completion Summary)

The Network Director Container is now successfully registered in the "Management Console" and the Container Details screen displays.

Figure 3-28: Register Network Director—Container Details

- | | |
|------|---|
| 6. * | After registering the Network Director in the "Management Console," the next step is to host virtual services in the Network Director Container Instance. |
|------|---|

To Register Network Director Container

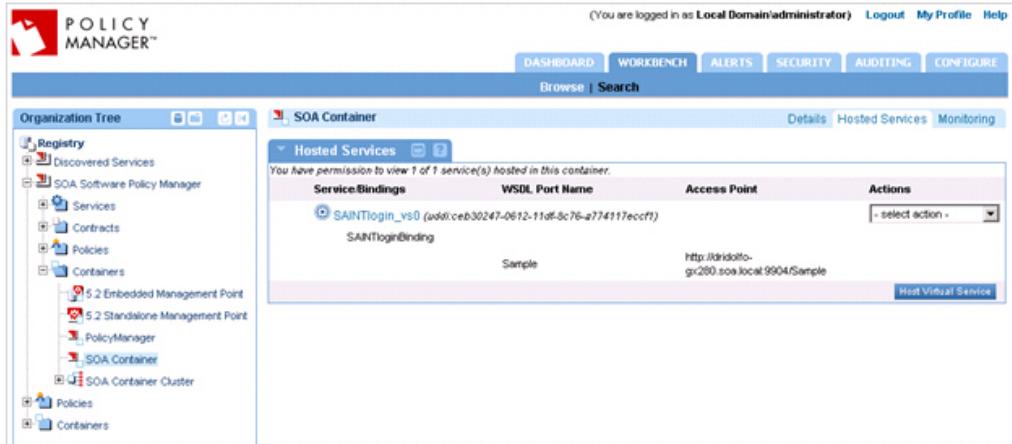
	<p>From the Containers Folder in the Organization Tree, or by selecting a line item on the "Containers Summary" select a container that you would like to configure or manage virtual service hosting for. The "Container Details" tab displays. Click the "Hosted Services" tab. The "Hosted Services Summary" screen displays and presents a list of virtual services that are hosted by the current container.</p>  <table border="1"> <thead> <tr> <th>Service Bindings</th> <th>WSO2 Port Name</th> <th>Access Point</th> <th>Actions</th> </tr> </thead> <tbody> <tr> <td>SAINTLogin_vs0 (add:ce630247-0612-11df-8c76-a774117ec0f1)</td> <td>SAINTLoginBinding</td> <td>Sample</td> <td>Host Virtual Service</td> </tr> </tbody> </table>	Service Bindings	WSO2 Port Name	Access Point	Actions	SAINTLogin_vs0 (add:ce630247-0612-11df-8c76-a774117ec0f1)	SAINTLoginBinding	Sample	Host Virtual Service
Service Bindings	WSO2 Port Name	Access Point	Actions						
SAINTLogin_vs0 (add:ce630247-0612-11df-8c76-a774117ec0f1)	SAINTLoginBinding	Sample	Host Virtual Service						
7.	<p>To add a virtual service to the current container, click "Host Virtual Service." The "Host Virtual Service Wizard" launches and displays the "Select Virtual Service" Screen. Click the "Help" button to launch the "Policy Manager Online Help" for complete instructions on selecting a virtual service and configuring service hosting.</p>								

Figure 3-29: Register Network Director—Hosted Services Summary

Chapter 4: SOA Software Administration Console

OVERVIEW

SOA Software Platform 7.2 configuration and administration is performed using the "SOA Software Administration Console." After the "SOA Software Platform Installation Wizard" installs the SOA Software Platform application, and the "Configure Container Instance Wizard" is used to define a container that will host selected "Features," the "SOA Software Administration Console" is used to install and configure these "Features."

When assessing your deployment requirements, you will determine how many container instances are required and which features you would like installed in each container instance. Configuration and administration of each feature installation is performed using a variety of different options offered in the "SOA Software Administration Console." Base features include SOA Software Policy Manager Console & SOA Software Policy Manager Web Services. These two features represent the Policy Manager application and can be installed in a single container or separate containers. The feature list is available on a per-version basis based on your specific customer requirements.

ADMIN CONSOLE ORGANIZATION

The "SOA Software Administration Console" is organized into five functional areas.

Available Features

The "Available Features" tab displays a list of features that are available to be installed on the current SOA Software Container instance.

Feature List

The feature list can be filtered to show "Product Feature" or "Tool" via the "Filter" drop-down.

Install Feature

To install a feature, select the corresponding checkbox, and then click "Install Feature." Select additional checkboxes to install multiple features. After the installation process is complete, the feature is listed in the "Installed Features" tab where additional configuration steps may be required to complete the installation.

The screenshot shows the SOA software administration console interface. At the top, there is a logo for 'SOA software™' and a status message '(You are logged in as Admin Console\administrator) Logout'. Below the logo is a navigation bar with tabs: AVAILABLE FEATURES, INSTALLED FEATURES, CONFIGURATION, REPOSITORY, and SYSTEM. The AVAILABLE FEATURES tab is selected. A filter dropdown menu is open, showing 'Feature' as the selected option. Below the filter is a table listing several features:

Name	Version	Description
SOA Software Agent Foundation	7.2.0	This feature is the core policy enforcement point, or agent, framework. The feature has no dependencies on a particular web service container.
SOA Software Delegate	7.2.0	This feature includes the policy implementation point for third-party web service frameworks, and provides support for WS-Policy and dynamic endpoint resolution. It can only be deployed with a web service framework like Apache Axis. A Delegate Access Point (see the SOA Software Delegate Access Point feature) is also included for remote delegates.
SOA Software Delegate Access Point	7.2.0	This feature provides a remote interface to delegates for policy implementation and message delivery. Any delegate that does not provide its own policy implementation and message delivery mechanism can route messages through the Access Point.
SOA Software Managed Services	7.2.0	This feature includes Managed Services required by PM Engine
SOA Software Network Director	7.2.0	This feature enables a Container to host Virtual Services. The Virtual Services are defined in the SOA Software Management Console. When the Network Director feature is enabled, the Container's metadata is updated to reflect this support. The metadata must be updated in the SOA Software Management Console so that it is aware that Virtual Services can be hosted on the Container. The feature also enables support for default Bindings and Policies. The default Bindings are SOAP and HTTP (REST and POX). The default Policies are WS-Addressing, WS-Auditing, WS-Security, HTTP Security, Authentication, and Authorization.
SOA Software Ping Support	7.2.0	This feature includes a simple "ping" web service for testing the functional state of the container's web service framework.
SOA Software Policy Manager Console	7.2.0	This feature includes a web based user interface for the central Policy Manager governance application. The user interface provides a dashboard and the primary interface for configuration, management and administration of Policy Manager and Service Manager. The console must interact with a Container (may be the same container) configured with the SOA Software Policy Manager Services

Figure 4-1: SOA Software Administration Console—Available Features

Installed Features

The "Installed Features" tab displays a list of features that are installed on the current SOA Software Container instance. The feature list "Filter" drop-down list box allows you to filter features by "Product Feature" or "Bundle" categories.

Update Feature

To update features, select a "Feature" line item and click "Search for Updates." An installation wizard displays and presents a listing of available updates (if applicable). To install the updates proceed with the installation process. After the update is complete, the "Version" number of updated features is changed to reflect the installed version.

Rollback Feature

To rollback a feature, select a "Feature" line item and click "Rollback Changes." The system uninstalls the selected feature, removes it from the "Installed Features" tab, and moves it back to the "Available Features" tab.

Uninstall Feature

To uninstall a feature, select the icon and click "OK." The system uninstalls the selected feature, removes it from the "Installed Features" tab, and moves it back to the "Available Features" tab.

Pending Installation Tasks

The "Pending Installation Tasks" is a list of configuration tasks (if applicable) that are required to complete the installation process. To perform pending installation tasks, click "Complete Configuration."

View Bundles

To view bundles associated with a current update, click the "Installed Features" tab, select "Bundle" from the "Filter" drop-down list box, and click the "Version" column to sort by version. To view "Bundle Details" click on a bundle line item.

Bundle ID	Name	Symbolic Name	Status	Version
0	System Bundle	org.apache.felix.framework	ACTIVE	4.4.0
1	Java XML Binding APIs	javax.xml.bind	ACTIVE	2.1.7
2	Apache XML Commons Resolver	com.springsource.org.apache.xml.resolver	ACTIVE	1.2.0
3	org.apache.xerces_2.9.1	org.apache.xerces_2.9.1	ACTIVE	2.9.1
4	Java XML Binding 2.0 API Implementation	com.sun.xml.bind	ACTIVE	2.1.13
5	Joda-Time	org.joda.time	ACTIVE	1.5.2
6	SOA Software Common XML Models	com.soa.xml.common.model	ACTIVE	7.2.0
7	SOA Software Core XML Models	com.soa.xml.core.model	ACTIVE	7.2.0
8	OSGI R4 Compendium Bundle	org.osgi.compendium	ACTIVE	4.1.0
9	SOA Software default XML parser and transformer	com.soa.xmlparsers	ACTIVE	7.2.0
10	Java Mail	com.springsource.javamail	ACTIVE	1.4.0
11	Java Servlet API	com.springsource.javaservlet	ACTIVE	2.5.0
12	WSDL4J	javax.wsdl	ACTIVE	1.6.2
13	Java Transaction API	com.springsource.javax.transaction	ACTIVE	1.1.0
14	ehcache-core-2.6.8	net.sf.ehcache	ACTIVE	2.6.8
15	ANTLR	com.springsource.antlr	ACTIVE	2.7.7

Page 1 of 20 | Displaying 1 - 16 of 319

Figure 4-2: SOA Software Administration Console—*Installed Features*

Configuration

The "Configuration" tab provides two methods of modifying a container configuration including "Configuration Actions" on the left sidebar that execute wizards, and "Properties" that are presented in a table format.

After modifying any container configuration properties you must restart your container. See "Appendix A: Start / Stop / Restart Container Instance" for more information.

Configuration Actions

Configuration Actions are located in the bottom left sidebar area of the "Configuration" tab on the SOA Software Administration Console. They represent "repeatable" tasks that were performed during the initial container configuration. To modify properties for a specific configuration area, click the task link to launch a wizard and then configure the properties.

Configuration Properties

Configuration properties are organized into "Configuration Categories" and are located in the top left sidebar area of the "Configuration" tab on the SOA Software Administration Console. To view properties, click a "Configuration Category" link and a properties table displays. To update a property, modify the property information in the table row and click **Apply Changes**. To add additional properties click, **Add Property**.

- The "Configuration Categories" section displays a list of property categories that expand to display specific property names and values. The initial property configuration is created during the installation and configuration of features.
- To update a property value, select a property name in the "Configuration Categories" section, update the property value, and click **Apply Changes**.
- To add a property value, select a "Configuration Category" to add a property to, and click "Add Property." The "Add Configuration Property" popup displays. Enter a "Property Name" and "Property Value" and click **Apply**.
- The "Configuration Actions" section displays a list of maintenance actions.

Property	Value	Action
canPublish	true	<input type="button" value="Remove"/>
database	pm72092414b	<input type="button" value="Remove"/>
driver	net.sourceforge.jtds.jdbc.Driver	<input type="button" value="Remove"/>
id	mssql	<input type="button" value="Remove"/>
instance		<input type="button" value="Remove"/>
logAbandoned	false	<input type="button" value="Remove"/>
maxidle	8	<input type="button" value="Remove"/>
maxPoolSize	30	<input type="button" value="Remove"/>
maxWait	30000	<input type="button" value="Remove"/>
minEvictableIdleTimeMillis	1800000	<input type="button" value="Remove"/>
minPoolSize	5	<input type="button" value="Remove"/>
name	MSSQL-1	<input type="button" value="Remove"/>
numTestsPerEvictionRun	3	<input type="button" value="Remove"/>
password	*****	<input type="button" value="Remove"/>
port	1433	<input type="button" value="Remove"/>
removeAbandoned	false	<input type="button" value="Remove"/>

Figure 4-3: SOA Software Administration Console—Configure

Repository

The "Repository" screen displays a list of repositories identified by "Location" that store product features that are available for installation on the current SOA Software Container instance. A default repository (SOA Software Platform Default Repository) is added as part of the initial SOA Software Platform installation.

Install Container Updates

SOA Software Container Updates are distributed using a Repository URL that points to a repository that contains designated product features or updates. The Repository URL is added to the "Repository" tab via the SOA Software Administration Console. Updates include bundles that represent new features, or updates to existing features.

After a Repository URL is added to the "Repository," updates to a specific feature can be applied by clicking the "Search for Updates" button via the "Installed Features" tab and applying the list of updates found.

This section provides instructions for adding a Repository URL to the SOA Software Administration Console and applying an update.

Add Repository URL

SOA Software product updates are installed via the SOA Software Administration Console. The first step in applying a product update is to add the Repository URL that includes the update data to via the "Repository" tab.

To Add a Repository URL

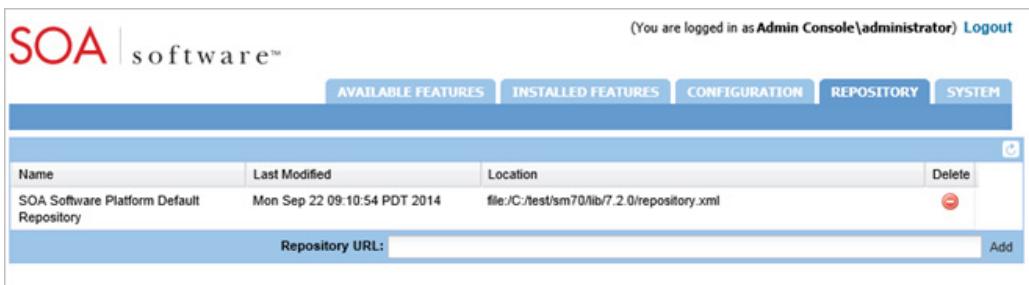
Step	Procedure
1.	<p>To add a Repository URL that contains SOA Software product updates, enter or paste the Repository URL provided by SOA Software Customer Support into the "Repository URL" field display.</p> <hr/> <p>Note: You must reformat your Repository URL by prepending "file://" to the URL and changing the backslashes to forward slashes (/).</p> <hr/> <p>After the URL is reformatted, click Add. The URL is added to the Repository as follows:</p>  <p>The screenshot shows the SOA software Admin Console interface. The top navigation bar includes links for Available Features, Installed Features, Configuration, Repository, and System. The Repository tab is active. Below the tabs, there is a table listing a single repository entry. The table columns are Name, Last Modified, Location, and Delete. The entry is "SOA Software Platform Default Repository" with a timestamp of "Mon Sep 22 09:10:54 PDT 2014" and a location of "file:/C:/test/sm70/lib/7.2.0/repository.xml". There is a red delete icon next to the entry. At the bottom of the table, there is a text input field labeled "Repository URL:" and a blue "Add" button.</p>
2.	You have successfully added the Repository URL. The next step in the update process is to apply the updates. Refer to the "Apply Updates" section for more information.

Figure 4-4: Admin Console—Repository (Add Repository)

Apply Updates

After successfully adding the Repository URL, the next step in the update process is to search for product updates and apply them. The following two update scenarios apply:

- If the update delivers a new feature, the new feature will be available for installation via the "Available Features" tab.
- If the update delivers updates to currently installed features, the updates are applied and can be viewed by selecting the "Bundle" filter on the "Installed Updates" screen. Each bundle is labeled with the update version number.

To Search For and Apply Update

Step	Procedure
1.	<p>After adding the Repository URL for the current update, navigate to the "Installed Features" tab. Click Search for Updates.</p>  <p>The screenshot shows the SOA Software Admin Console interface. The top navigation bar includes links for Admin Console, Logout, Available Features, Installed Features (which is selected), Configuration, Repository, and System. A sub-menu bar below the main menu has 'Product Feature' selected. The main content area displays a table of installed features with columns for Name, Version, and Description. The 'SOA Software Admin Console' feature is listed with version 7.2.0. The 'Search for Updates' button is located at the bottom right of the feature list.</p>
2.	The "Searching for updates..." screen displays.

Figure 4-5: Admin Console—Search for Updates Button

To Search For and Apply Update

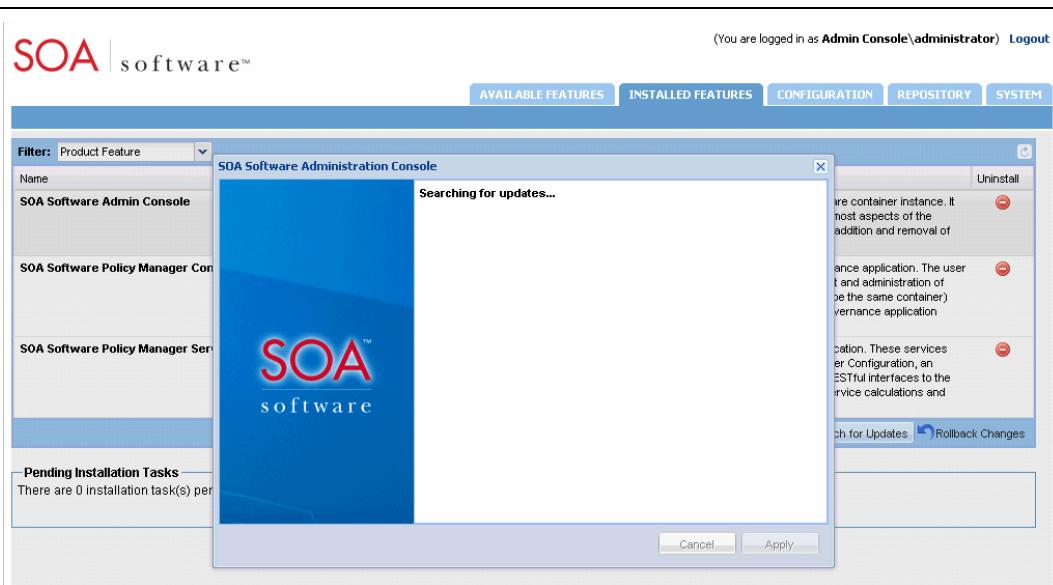


Figure 4-6: Admin Console—Searching for Updates

After the query for updates is completed, the "Updates Found" screen displays and presents a list of features that updates are available for. To install the updates for the list of features, click **Apply**.

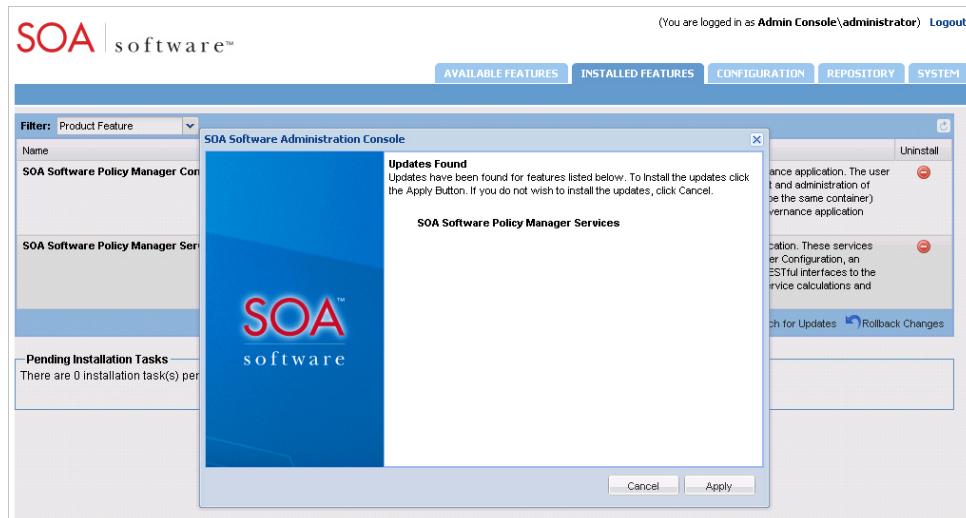


Figure 4-7: Admin Console—Installed Features (Updates Found)

The "Updating" screen displays while the update process is being performed. After the updating process is complete the wizard closes.

To Search For and Apply Update

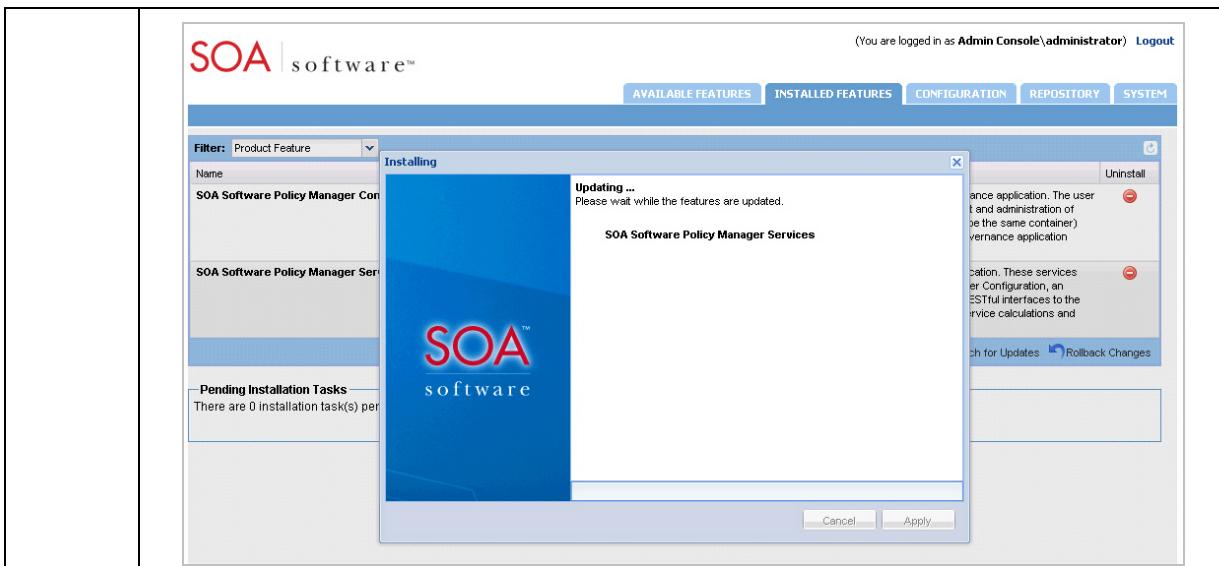


Figure 4-8: Admin Console—Installed Features (Updating)

- To view updates, select "Bundle" from the "Filter" dropdown list box. Review the list of updates (i.e., bundles). Items are sorted by update "Version" number.

The screenshot shows the same SOA Software Administration Console interface as Figure 4-8, but with a different filter applied. The 'Filter' dropdown now shows 'Bundle'. The main table lists 15 different OSGI bundles, each with columns for 'Bundle ID', 'Name', 'Symbolic Name', 'Status', and 'Version'. The 'Status' column shows values like ACTIVE, 4.4.0, and 2.1.7. The 'Version' column shows values like 4.4.0, 2.1.7, and 1.2.0. At the bottom of the table, it says 'Displaying 1 - 16 of 319'.

Bundle ID	Name	Symbolic Name	Status	Version
0	System Bundle	org.apache.felix.framework	ACTIVE	4.4.0
1	Java XML Binding APIs	javax.xml.bind	ACTIVE	2.1.7
2	Apache XML Commons Resolver	com.springsource.org.apache.xml.resolver	ACTIVE	1.2.0
3	org.apache.xerces_2.9.1	org.apache.xerces_2.9.1	ACTIVE	2.9.1
4	Java XML Binding 2.0 API Implementation	com.sun.xml.bind	ACTIVE	2.1.13
5	Joda-Time	org.joda.time	ACTIVE	1.5.2
6	SOA Software Common XML Models	com.soa.xml.common.model	ACTIVE	7.2.0
7	SOA Software Core XML Models	com.soa.xml.core.model	ACTIVE	7.2.0
8	OSGI R4 Compendium Bundle	org.osgi.compendium	ACTIVE	4.1.0
9	SOA Software default XML parser and transformer	com.soa.xmlparsers	ACTIVE	7.2.0
10	Java Mail	com.springsource.javamail	ACTIVE	1.4.0
11	Java Servlet API	com.springsource.javax.servlet	ACTIVE	2.5.0
12	WSDL4J	javax.wsdl	ACTIVE	1.6.2
13	Java Transaction API	com.springsource.javax.transaction	ACTIVE	1.1.0
14	ehcache-core-2.6.8	net.sf.ehcache	ACTIVE	2.6.8
15	ANTLR	com.springsource.antlr	ACTIVE	2.7.7

Figure 4-9: Admin Console—Installed Features (Bundle Filter)

Perform System Rollback

When changes are made to an SOA Container (e.g., installing, updating, uninstalling a feature, etc.), a snapshot is taken that reflects the date and time when the change occurred. The state of an SOA Container can be rolled back to a previous date. The following procedure illustrates how to perform a system rollback.

To Perform a System Rollback

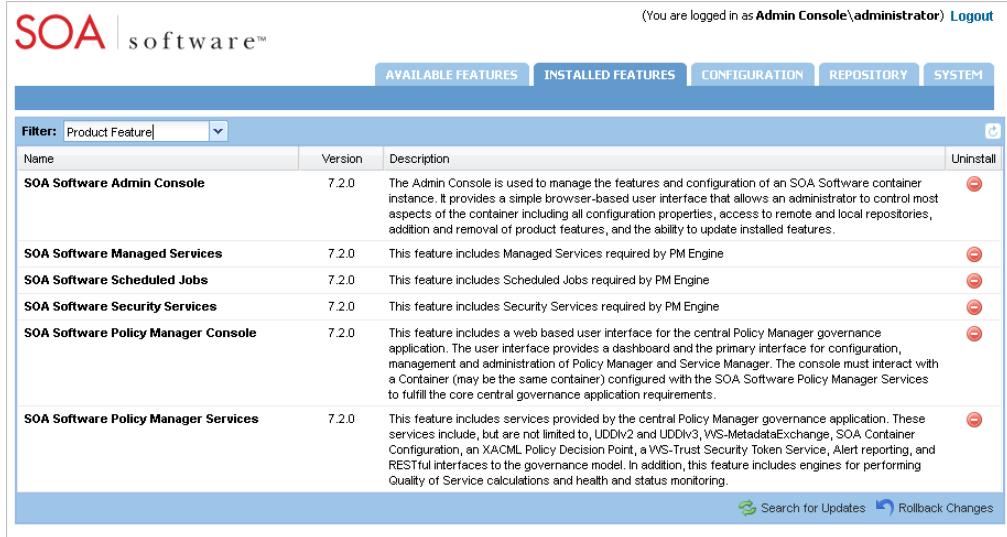
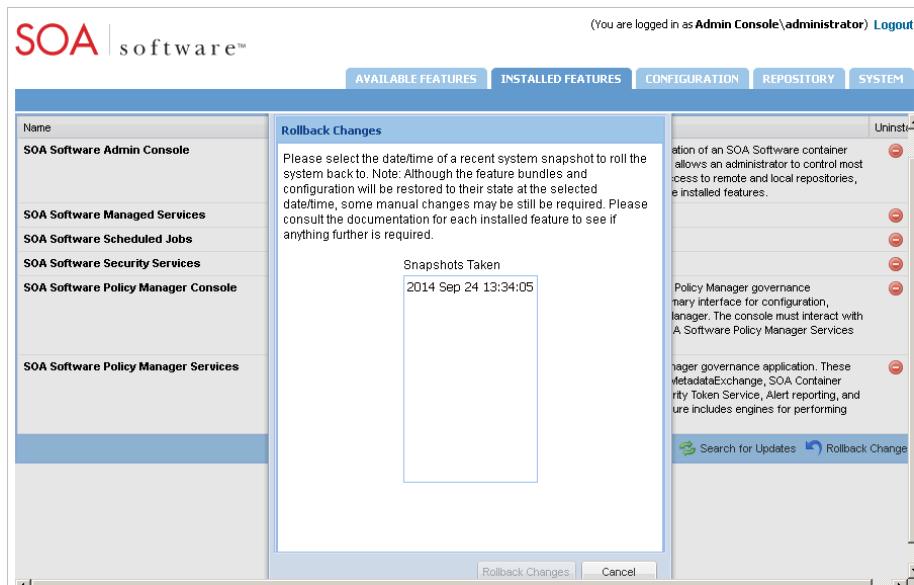
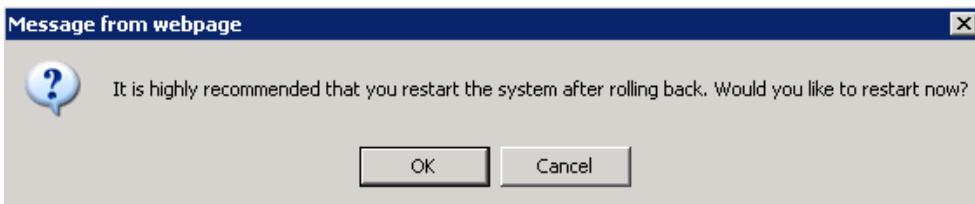
Step	Procedure
1.	<p>Navigate to the "Installed Features" tab. Click "Rollback Changes."</p>  <p>The screenshot shows the SOA software administration console interface. The top navigation bar includes links for Available Features, Installed Features, Configuration, Repository, and System. The main content area is titled 'INSTALLED FEATURES'. A table lists various installed features, each with a 'Uninstall' link. The 'SOA Software Admin Console' feature is selected. At the bottom of the screen, there are buttons for 'Search for Updates' and 'Rollback Changes'.</p>
2.	<p>The "Rollback Changes" screen includes a "Snapshots Taken" display window that includes Date/Time entries that represent when changes were made to the current SOA Container.</p> <p>To rollback the state of the current SOA Container to a previous Date/Time, select a Snapshot line item and click Rollback Changes.</p>  <p>The screenshot shows the 'ROLLBACK CHANGES' dialog box. It contains instructions about selecting a snapshot to roll back the system. Below this is a table titled 'Snapshots Taken' which shows a single entry: '2014 Sep 24 13:34:05'. At the bottom of the dialog are 'Rollback Changes' and 'Cancel' buttons.</p>

Figure 4-10: Admin Console—*Rollback Changes* Button

To Perform a System Rollback

3.	The system displays a "Processing Request" indicator, performs a system rollback, and then provides a prompt to restart the system.
	
4.	Click OK to restart, then log back into the SOA Software Administration Console.

System

The "System" tab provides a summary of the SOA Software Platform process characteristics and states. Information includes the last start time of the process, memory details (i.e., Total, Used, Free), and a listing of associated system properties. System details can be used to review system health and for troubleshooting purposes.

Restart Container

To restart the current SOA Software Container instance and associated bundles, click "Restart." Note that "Restart" applies to standalone deployments only.

Generate System Report

The **Generate System Report** option allows you to generate a report of all system activity associated with the current container.

The screenshot shows the SOA Software Administration Console interface. At the top, there is a header with the SOA software logo and a message indicating the user is logged in as Admin Console\administrator with a Logout link. Below the header is a navigation bar with tabs: AVAILABLE FEATURES, INSTALLED FEATURES, CONFIGURATION, REPOSITORY, and SYSTEM. The SYSTEM tab is currently selected. The main content area is titled "SOA_SOFTWARE_PLATFORM". It displays system statistics: Last Started (9/24/2014, 1:58:39 PM), Startup Time (99,325 ms), Total Memory (529,051,648 Bytes), Used Memory (283,149,352 Bytes), Free Memory (245,902,296 Bytes), and Lifecycle State (STARTED [319] bundle(s)). A red "Restart" button is located in the top right corner of this section. Below this, there is a green "Generate System Report" button. Further down, there are three blue horizontal bars with the following information: "System Properties" (76 properties), "Threads" (109 threads), and "Bundles" (319 bundles).

Figure 4-13: SOA Software Administration Console—System

Appendix A: Start / Stop / Restart Container Instance

The section provides instructions on how to start and stop a container instance.

START / STOP CONTAINER INSTANCE

The following methods can be used to start and stop a container instance.

Start / Stop Container Methods	<p><u>Start / Stop Process in Windows</u></p> <p>Start—Navigate to sm70\bin and type <code>startup <instance name></code> Stop—Close the DOS Window or type Ctrl-C</p> <p><u>Start Process as Windows Service</u></p> <p>Start—Launch Program Group (Settings /Control Panel/Administrative Tools/Services)</p> <p>Select SM 7.2 - <Container Instance> - Note that the instance name is displayed as the Container Key.</p> <p>Stop—Select SOA Software Container Instance - Note that the instance name is displayed as the Container Key.</p> <p>From "Actions" menu, select Stop.</p> <p><u>Start / Stop Process in UNIX</u></p> <p>Start—Navigate to sm70/bin and type <code>startup.sh <instance name></code> Stop—Send the process a KILL signal or Ctrl-C</p> <p><u>Start / Stop Process in UNIX (Background)</u></p> <p>Start—Navigate to sm70/bin and type <code>startup.sh <instance name> -bg</code> Stop—Navigate to sm70/bin and type <code>shutdown.sh</code></p>
---------------------------------------	--

RESTART CONTAINER INSTANCE

To restart the current SOA Software Container instance and associated bundles, click "Restart." Note that "Restart" applies to standalone deployments only.

Appendix A: Start / Stop / Restart Container Instance

The screenshot shows the SOA software administration console interface. At the top, there is a header with the SOA software logo and navigation tabs for Available Features, Installed Features, Configuration, Repository, and System. The System tab is currently selected. Below the header, a main content area titled "SOA_SOFTWARE_PLATFORM" displays system statistics. These statistics include:

Last Started	9/24/2014, 1:58:39 PM
Startup Time	99,325 ms
Total Memory	529,051,648 Bytes
Used Memory	283,149,352 Bytes
Free Memory	245,902,296 Bytes
Lifecycle State	STARTED [319] bundle(s)

On the right side of the statistics table is a red "Restart" button. Below the statistics table is a green "Generate System Report" button. Further down the page, there are three more sections: "System Properties" (76 properties), "Threads" (109 threads), and "Bundles" (319 bundles).

Figure A-1: SOA Software Administration Console—System

Appendix B: Database Drivers

Database drivers are deployed to the `c:\sm70\instances\<container instance>\deploy` of the SOA Software Platform 7.1 Release directory. The following database drivers are supported:

Database Type	Driver Requirement
Oracle 11g (SID, Service Name)	Requires database driver <code>ojdbc5.jar</code> (11g).
Microsoft SQL Server 2008, 2012	Database driver included with SOA Software Platform.
IBM DB2 Universal Database V9.7, V10.5	V9.7 requires DB2 Universal JDBC Driver (e.g., <code>db2jcc.jar</code>).
MySQL 5.1	Requires database driver <code>com.springsource.com.mysql.jdbc-5.1.6.jar</code>

Appendix C: Uninstalling SOA Software Platform

OVERVIEW

The SOA Software Platform provides an uninstall utility for removing the current product version. The Uninstall process is implemented using the "Uninstall SOA Software Wizard" that is launched using the "Uninstall SOA Software Platform" application in the sm70\UnInstallerData folder in the SOA Software Platform release directory. When you run the "Uninstall SOA Software Platform Wizard" to uninstall an SOA Software Platform version, all feature related files are removed from the designated SOA Software Platform directory. Some folder and configuration files remain in the directory after the Uninstall procedure completes its process. The remaining folders and files must be manually deleted.

Uninstall procedures are provided for SOA Software Platform 7.2 Windows and UNIX platform versions.

BACKUP PROCEDURES

The SOA Software Platform uninstall process permanently removes SOA Software Platform feature files from the specified directory. Therefore, as a standard practice we recommend that you have a complete backup copy of the most recent SOA Software Platform Installation Files and Database.

UNINSTALL SOA SOFTWARE PLATFORM (GUI)

To Uninstall SOA Software Platform (GUI)

Step	Procedure
1.	To uninstall SOA Software Platform 7.2—Windows: Navigate to the sm70\UnInstallerData directory. Execute "Uninstall SOA Software Platform" to launch the "SOA Software Platform Uninstall Wizard."
2.	To uninstall SOA Software Platform 7.2—Linux or Solaris: Navigate to the sm70\UnInstallerData directory. Execute "sh Uninstall SOA Software Platform" to launch the "SOA Software Platform Uninstall Wizard." <hr/> <p>Note: To uninstall SOA Software Platform via the "Console," see the "Uninstalling SOA Software Platform—Console" section.</p> <hr/>

To Uninstall SOA Software Platform (GUI)

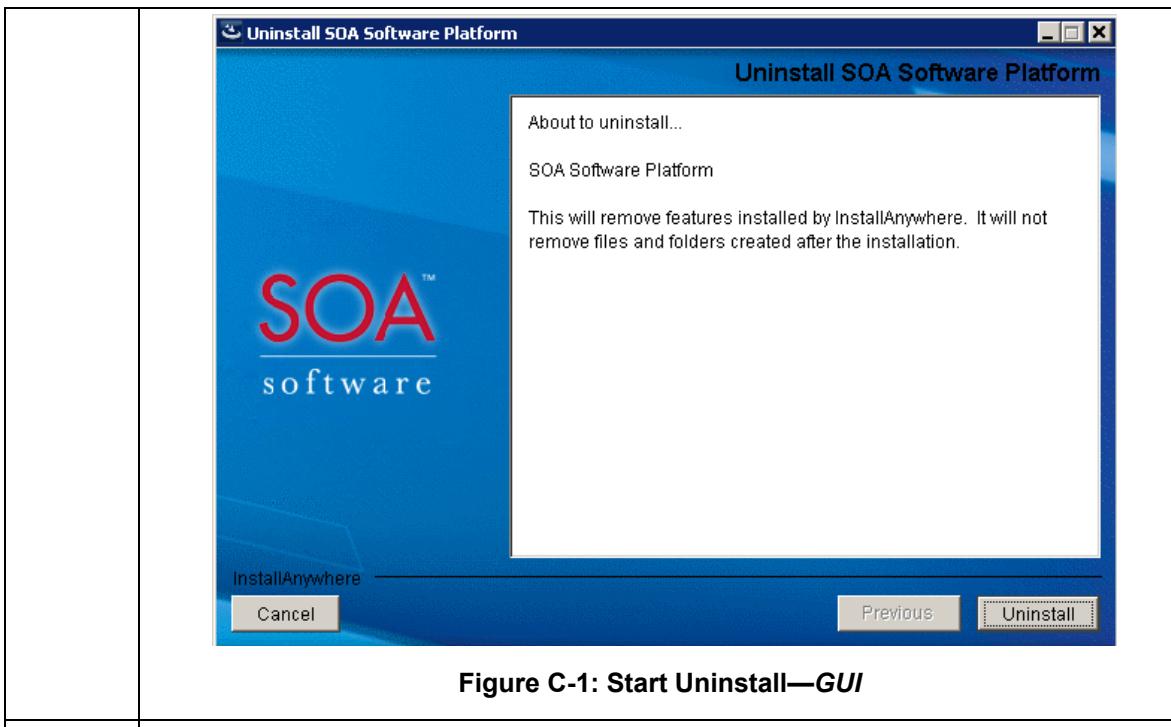


Figure C-1: Start Uninstall—GUI

3. The "Uninstall Software Platform Wizard" cannot be cancelled after **Uninstall** is clicked. If you would like to exit the "SOA Software Platform Uninstall Wizard," click **Cancel**. The system displays the "Uninstall Not Complete" message.



Figure C-2: Cancel Installation—Uninstall Not Complete Message

4. To continue with the uninstall process, click **Resume** then click **Uninstall**. The following warning message displays providing key information pertaining to the uninstall process:

To Uninstall SOA Software Platform (GUI)



Figure C-3: Uninstall Warning Message

- To begin the Uninstall process, click **OK**.

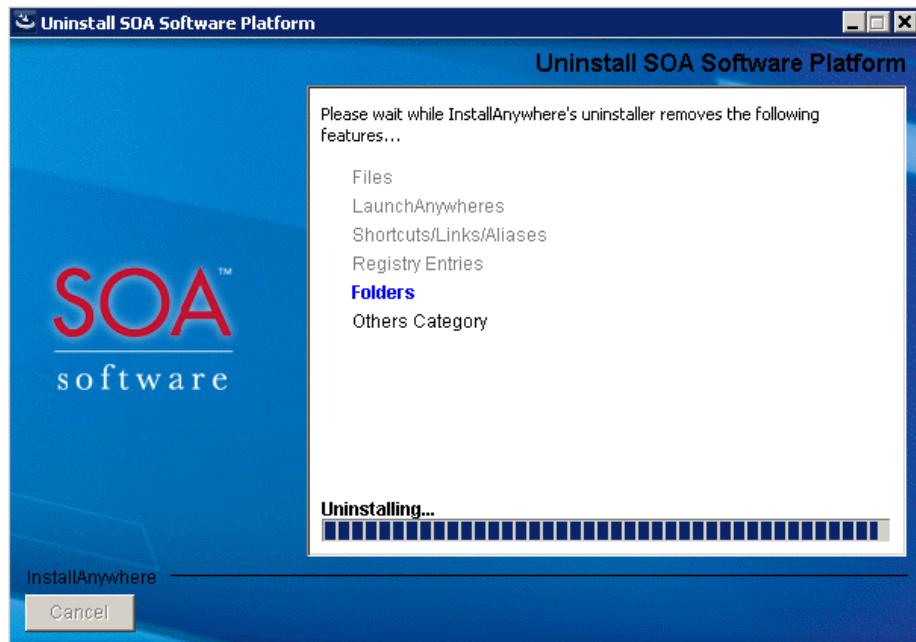
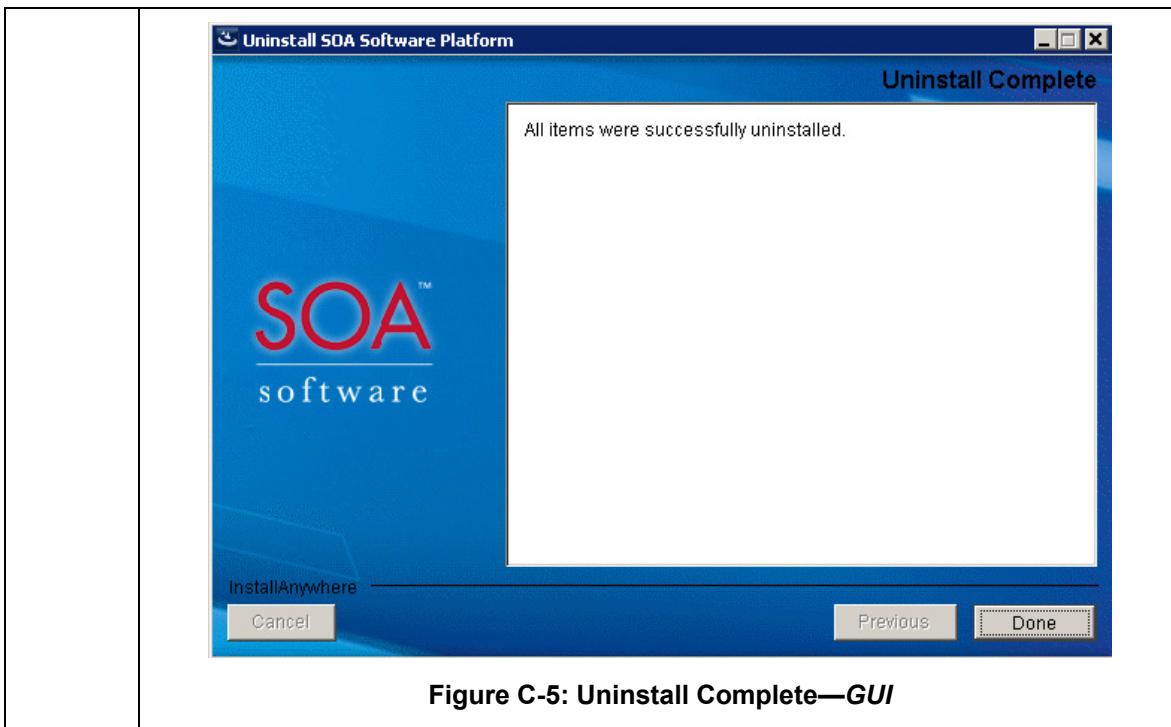


Figure C-4: Uninstalling SOA Software Platform—GUI

- | | |
|----|--|
| 5. | When the uninstall process is complete, the "Uninstall Complete" screen displays and presents a list of directories and/or files that need to be physically deleted. Click Done to exit the "SOA Software Platform Uninstall Wizard." |
|----|--|

To Uninstall SOA Software Platform (GUI)**UNINSTALL SOA SOFTWARE PLATFORM (CONSOLE)**

This section provides instructions for uninstalling a Linux or Solaris version of SOA Software Platform 7.2 via the console.

To Uninstall SOA Software Platform (Console)

Step	Procedure
1.	To uninstall SOA Software Platform 7.2 for Linux or Solaris via the console, navigate to the <code>sm70\UninstallerData</code> directory. Execute " <code>sh Uninstall SOA Software Platform -i</code> " to launch the "SOA Software Platform Uninstall Wizard." The "Start Uninstall" console screen displays.

To Uninstall SOA Software Platform (Console)

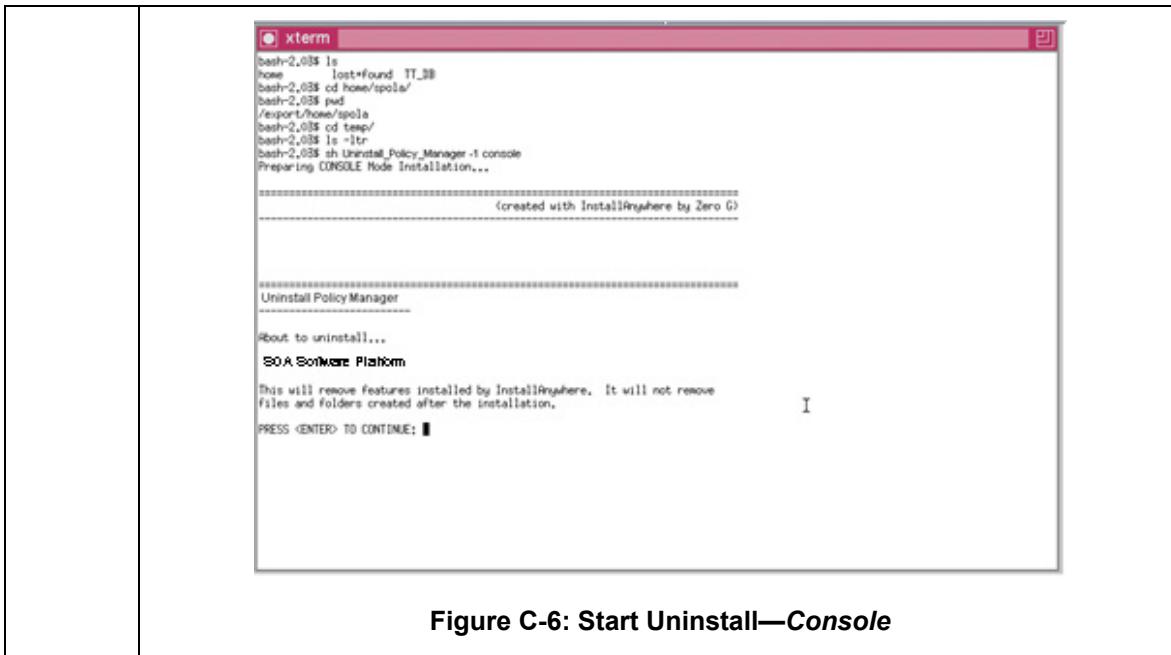


Figure C-6: Start Uninstall—Console

- | | |
|----|---|
| 2. | <p>The "Uninstall SOA Software Platform Wizard" cannot be cancelled after Uninstall is clicked. If you would like to exit the "SOA Software Platform Uninstall Wizard," execute Cancel. The system displays the following message:</p> <p><i>"Uninstall Not Complete. If you cancel uninstall now, SOA Software Platform will not be uninstalled. To continue uninstall, click "Resume." To cancel uninstall, click "Quit."</i></p> |
| 3. | <p>To begin the Uninstall process, click Enter. The "Uninstalling SOA Software Platform" screen displays, and the wizard begins the uninstall process and presents a list of features that are being uninstalled.</p> |

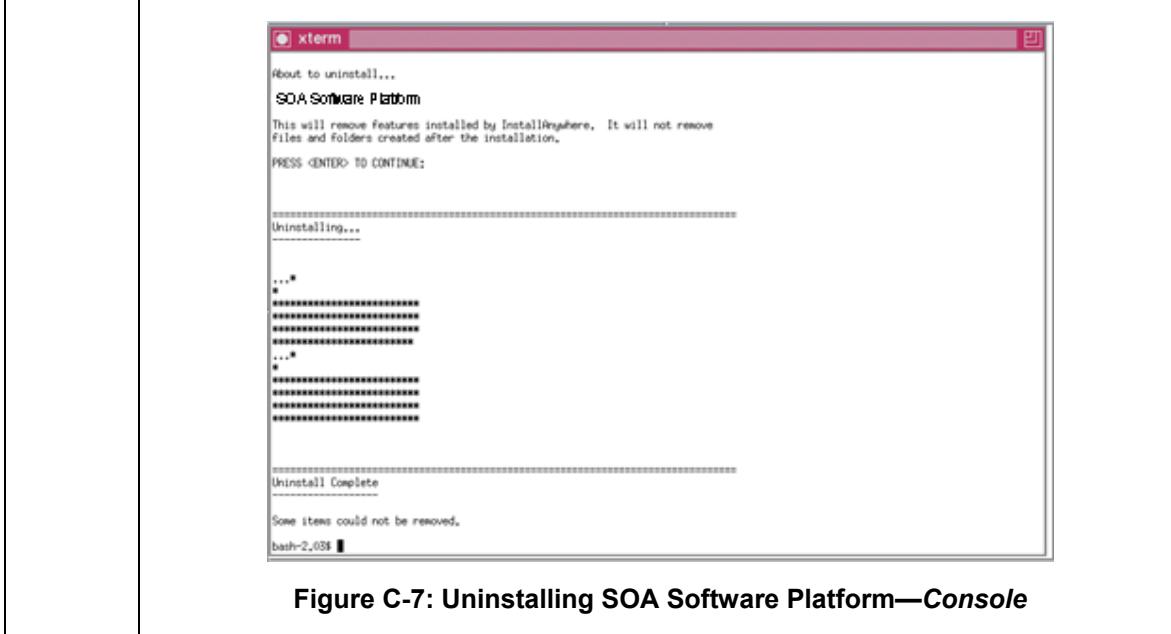


Figure C-7: Uninstalling SOA Software Platform—Console

To Uninstall SOA Software Platform (Console)

- | | |
|----|--|
| 4. | When the uninstall process is complete, the "Uninstall Complete" screen displays and presents a list of directories and/or files that need to be physically deleted. |
|----|--|