



Cisco Prime Service Catalog Installation Guide

Release 9.4.1 R2
May 2013

Americas Headquarters

Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
<http://www.cisco.com>
Tel: 408 526-4000
800 553-NETS (6387)
Fax: 408 527-0883

THE SPECIFICATIONS AND INFORMATION REGARDING THE PRODUCTS IN THIS MANUAL ARE SUBJECT TO CHANGE WITHOUT NOTICE. ALL STATEMENTS, INFORMATION, AND RECOMMENDATIONS IN THIS MANUAL ARE BELIEVED TO BE ACCURATE BUT ARE PRESENTED WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. USERS MUST TAKE FULL RESPONSIBILITY FOR THEIR APPLICATION OF ANY PRODUCTS.

THE SOFTWARE LICENSE AND LIMITED WARRANTY FOR THE ACCOMPANYING PRODUCT ARE SET FORTH IN THE INFORMATION PACKET THAT SHIPPED WITH THE PRODUCT AND ARE INCORPORATED HEREIN BY THIS REFERENCE. IF YOU ARE UNABLE TO LOCATE THE SOFTWARE LICENSE OR LIMITED WARRANTY, CONTACT YOUR CISCO REPRESENTATIVE FOR A COPY.

The Cisco implementation of TCP header compression is an adaptation of a program developed by the University of California, Berkeley (UCB) as part of UCB's public domain version of the UNIX operating system. All rights reserved. Copyright © 1981, Regents of the University of California.

NOTWITHSTANDING ANY OTHER WARRANTY HEREIN, ALL DOCUMENT FILES AND SOFTWARE OF THESE SUPPLIERS ARE PROVIDED "AS IS" WITH ALL FAULTS. CISCO AND THE ABOVE-NAMED SUPPLIERS DISCLAIM ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THOSE OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OR ARISING FROM A COURSE OF DEALING, USAGE, OR TRADE PRACTICE.

IN NO EVENT SHALL CISCO OR ITS SUPPLIERS BE LIABLE FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES, INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR LOSS OR DAMAGE TO DATA ARISING OUT OF THE USE OR INABILITY TO USE THIS MANUAL, EVEN IF CISCO OR ITS SUPPLIERS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Cisco and the Cisco Logo are trademarks of Cisco Systems, Inc. and/or its affiliates in the U.S. and other countries. A listing of Cisco's trademarks can be found at www.cisco.com/go/trademarks. Third party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1005R)

Any Internet Protocol (IP) addresses and phone numbers used in this document are not intended to be actual addresses and phone numbers. Any examples, command display output, network topology diagrams, and other figures included in the document are shown for illustrative purposes only. Any use of actual IP addresses or phone numbers in illustrative content is unintentional and coincidental.

Cisco Prime Service Catalog Installation Guide
© 2013 Cisco Systems, Inc. All rights reserved.



CONTENTS

About this Guide vii

CHAPTER 1

Platform Support Matrix 1-1

CHAPTER 2

Cisco Prime Service Catalog Installation and Configuration Guide 2-1

Overview 2-1

Related Documentation 2-1

Prerequisites and Installation Overview 2-2

Deployment Topology 2-2

Software Requirements 2-3

Software Configuration Prerequisites 2-4

Hardware Requirements 2-7

Overview of Installation Process 2-9

Configuring Databases 2-9

Configuring Oracle 2-10

Configuring Microsoft SQL Server 2-11

Database Information Worksheet 2-13

Preinstallation Configuration for JBoss 2-15

Installing Java 2-15

Installing JBoss Software 2-15

Preparing IIS Web Server 2-16

Application Server Information Worksheet 2-16

What's Next? 2-17

Preinstallation Configuration for WebLogic 2-17

Installing Java 2-17

Downloading Service Catalog Software Image 2-18

Installing Custom Java Libraries 2-19

Creating a Managed WebLogic Server 2-20

Configuring JMS Server 2-24

Configuring JDBC Data Sources 2-27

Restarting WebLogic Server 2-30

Application Server Information Worksheet 2-32

What's Next? 2-33

Preinstallation Configuration for WebSphere 2-34

Downloading Service Catalog Software Image	2-34
Installing Custom Java Library	2-35
Creating a WebSphere Server	2-35
Configurations for WebSphere Cluster	2-37
Configuring Virtual Host	2-38
Configuring JMS Server	2-39
Configuring J2C Authentication Data	2-42
Configuring JDBC Data Sources	2-43
Starting WebSphere Server	2-49
Application Server Information Worksheet	2-50
What's Next?	2-52
Running the Service Catalog Installer	2-52
Before You Begin	2-53
Executing Setup	2-53
How to Use the Installation Wizard	2-54
Scenario 1: New Typical Installation	2-54
What's Next	2-57
Scenario 2: New Custom Installation	2-57
Postinstallation Configuration for JBoss	2-72
Starting JBoss Server on Windows	2-72
Starting JBoss Server on Linux	2-73
Configure JBoss As Windows Service	2-74
Verifying Your Installation	2-74
Postinstallation Configuration for WebLogic	2-75
Extracting WAR Files	2-75
Deploying RequestCenter.war	2-76
Deploying ISEE.war	2-76
Verifying Your Installation	2-77
Configuring Web Server	2-77
Postinstallation Configuration for WebSphere	2-78
Deploying RequestCenter.war	2-78
Deploying ISEE.war	2-83
Starting Service Catalog Applications	2-88
Verifying Your Installation	2-88
Configuring Web Server	2-89

CHAPTER 3

Reporting Guide 3-1

Overview 3-1

Intended Audience 3-1

Cognos Application Server Requirements	3-2
Operating Systems	3-2
Memory and Disk Space	3-2
Internet Information Services (IIS)	3-2
Internet Explorer	3-3
Database Client Connectivity	3-3
Other Requirements	3-4
Cognos Database Server Requirements	3-4
Creating ContentStore Database for Oracle 11g	3-5
Creating ContentStore Database for Microsoft SQL Server 2008 R2	3-6
Sizing the ContentStore Database	3-6
Installing Cognos Software	3-7
Downloading Cognos Software	3-7
Installing Cognos Business Intelligence Server	3-8
Installing Cognos Data Manager	3-9
Installing Cognos Fix Pack 4	3-10
Copying Oracle JDBC Driver	3-10
Installing Reporting	3-10
Executing Reporting Setup	3-11
How to Use the Installation Wizard	3-11
Running the Reporting Installation Wizard	3-11
Executing create_datasource.cmd	3-20
Importing Service Catalog Reports	3-21
Restart the Service Catalog Application	3-21
Configuring Advanced Reporting	3-22
Postinstallation Tasks	3-23
Configuring the Time Zone	3-24

CHAPTER 4

Upgrade Guide 4-1

Overview	4-1
Audience	4-1
Upgrading Service Catalog	4-1
Overview	4-1
What is Upgraded	4-3
What is Not Upgraded	4-3
Assumptions and Best Practices	4-3
Prerequisites	4-3
High-Level Upgrade Methodology	4-4
Upgrading to Service Catalog Release 9.4.1R2	4-5

Upgrading Reporting	4-15
Performing Preupgrade Tasks for Reporting	4-15
Running the Reporting Installer for Upgrade	4-16
Performing Postupgrade Tasks for Advanced Reporting	4-16

CHAPTER 5

Advanced Configuration and Troubleshooting Tips for Cognos 5-1

Overview	5-1
Miscellaneous Configuration	5-1
Configuring Client Browsers to View a Report as Excel	5-1
Configuring Cognos Memory Usage	5-2
Setting the Timeout Interval on IBM Cognos 8 Server	5-2
Understanding Roles	5-3
Roles for Accessing Reporting Features	5-3
Moving Reports from Development to Production Environments	5-5
Prerequisites	5-5
Creating an Export File	5-5
Import the Exported File	5-6
Modifying Form Data Reporting Configuration	5-7
Launching the FDR Configurator	5-7
How to Use the Configuration Wizard	5-8
Running the FDR Configurator Wizard	5-8
Configuring HTTPS for Cognos	5-14
Overview of SSL support in Cognos Server	5-14
Prerequisites and Assumptions	5-14
Importing IIS Server Certificate to the Cognos Server	5-15
Configuring Cognos 8.4 for SSL	5-15
Changes to newscale.properties for SSL	5-18
Verification	5-18
Troubleshooting	5-19

INDEX



About this Guide

Revised: May, 2013, OL-26389-03

Objectives

The *Cisco Prime Service Catalog Installation Guide* contains instructions related to the installation, upgrade and configuration tasks for the Cisco Prime Service Catalog (Service Catalog) product and its prerequisite software.

Audience

This guide is intended for system administrators and systems integrators responsible for installing and configuring Cisco Prime Service Catalog products.

About Cisco Prime Service Catalog Licensing

Cisco Prime Service Catalog is integrated with Cisco Intelligent Automation for Cloud to facilitate self-service ordering from a unified Service Catalog for compute, network, storage, and other data center resources. When included in Cisco Intelligent Automation for Cloud, the Cisco Prime Service Catalog is licensed on a per server or per blade basis.

Cisco Prime Service Catalog is also licensed to manage desktop, communications, bring your own devices, and other end-user service requests through a catalog of workplace services for employees. When licensed for workplace services, the Cisco Prime Service Catalog is licensed on a per user basis.

These use cases are licensed separately. The licenses are determined as follows:

- Cisco Prime Service Catalog per server edition is licensed based on the number of servers managed by the product.
- Cisco Prime Service Catalog per user edition is licensed based on the number of users accessing the product.

If you choose to use Cisco Prime Service Catalog to manage both data center and workplace use cases you need to license both the per user and per server options. We may also discuss Enterprise License Agreement (ELA) with your account manager.

For more information about licensing contact your account manager.

Document Organization

The *Cisco Prime Service Catalog Installation Guide* is divided into the following five chapters:

- [Chapter 1, “Platform Support Matrix”](#): This chapter contains the Cisco Prime Service Catalog Platform Support Matrix table.
- [Chapter 2, “Cisco Prime Service Catalog Installation and Configuration Guide”](#): This chapter contains instructions for installing and configuring Cisco Prime Service Catalog.
- [Chapter 3, “Reporting Guide”](#): This chapter contains instructions for installing and configuring Cisco Prime Service Catalog Reporting and Cognos software.
- [Chapter 4, “Upgrade Guide”](#): This chapter contains instructions for upgrading Cisco Prime Service Catalog Release 2008.3 or above to Release 9.4.1.
- [Chapter 5, “Advanced Configuration and Troubleshooting Tips for Cognos”](#): This chapter contains troubleshooting tips and optional configuration instructions for Cognos.

Conventions

This document uses the following conventions:

Convention	Indication
bold font	Commands and keywords and user-entered text appear in bold font .
<i>italic font</i>	Document titles, new or emphasized terms, and arguments for which you supply values are in <i>italic font</i> .
[]	Elements in square brackets are optional.
{ x y z }	Required alternative keywords are grouped in braces and separated by vertical bars.
[x y z]	Optional alternative keywords are grouped in brackets and separated by vertical bars.
string	A nonquoted set of characters. Do not use quotation marks around the string or the string will include the quotation marks.
< >	Nonprinting characters such as passwords are in angle brackets.
[]	Default responses to system prompts are in square brackets.
!, #	An exclamation point (!) or a pound sign (#) at the beginning of a line of code indicates a comment line.
Choose Menu item > Submenu item from the X menu.	Selections from a menu path use this format. For example: Choose Import > Formats from the File menu.



Note

Means *reader take note*.



Tip

Means *the following information will help you solve a problem*.



Caution

Means *reader be careful*. In this situation, you might perform an action that could result in equipment damage or loss of data.



Timesaver

Means *the described action saves time*. You can save time by performing the action described in the paragraph.



Warning

Means *reader be warned*. In this situation, you might perform an action that could result in bodily injury.

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

Subscribe to the *What's New in Cisco Product Documentation* as an RSS feed and set content to be delivered directly to your desktop using a reader application. The RSS feeds are a free service. Cisco currently supports RSS Version 2.0.



CHAPTER 1

Platform Support Matrix

Table 1-1 *Cisco Prime Service Catalog Platform Support Matrix*

	Cisco Prime Service Catalog Release Version				
	9.4.1 R2/ 9.4.1/9.4	9.3.2/9.3.1	9.3	9.1	2008.3
Browser					
Mozilla® Firefox® 3.6	My Services Portal Manager Service Manager	My Services Portal Manager	My Services Portal Manager	My Services	My Services
Internet Explorer® (IE) 6	Service Manager			My Services Service Manager Service Designer	My Services
Internet Explorer (IE) 7	My Services Portal Manager Service Manager	Yes	Yes	Yes	Yes
Internet Explorer (IE) 8	Yes	Yes	Yes	Yes	Yes
Safari® 4 on Mac OS® only				My Services	My Services
Web Server					
Apache™ 2.2	Yes	Yes	Yes	Yes	Yes
IBM® HTTP 6.1				Yes	Yes
IBM HTTP 7.0	Yes	Yes			
Microsoft® Internet Information Services (IIS) 6			Yes	Yes	Yes
Microsoft Internet Information Services (IIS) 7.5	Yes	Yes			
Application Server OS					
IBM AIX® 5.3 (32 & 64-bit)				Yes	Yes
IBM AIX 7.1 (64-bit)	Yes	Yes			
Microsoft Windows Server® 2003 SP2 (32-bit & 64-bit)			Yes	Yes	Yes
Microsoft Windows Server 2008 R2 (64-bit) with SP1	Yes	Yes			

Table 1-1 Cisco Prime Service Catalog Platform Support Matrix (continued)

	Cisco Prime Service Catalog Release Version				
	9.4.1 R2/ 9.4.1/9.4	9.3.2/9.3.1	9.3	9.1	2008.3
Red Hat® Linux® ES/AS 4 (32-bit & 64-bit)			Yes	Yes	Yes
Red Hat Enterprise Linux 5.6 (32-bit & 64-bit)	Yes	Yes			
Sun™ Solaris™ 10 (64-bit)	Yes	Yes	Yes	Yes	Yes
CentOS Linux 5.7 (64-bit)	9.4.1 R2 only				
Application Server					
Oracle® WebLogic® 10.3 (Oracle JDK™ 6)	JDK 6 Update 43	JDK 6 Update 30	JDK 6 Update 23	JDK 6 Update 16	JDK 6 Update 12
IBM WebSphere® 6.1.x (IBM Java 1.5)				IBM Java 1.6 SR9	IBM Java 1.6 SR8
IBM WebSphere 7.0.0.x (IBM Java 1.6)	IBM Java 1.6 SR13	IBM Java 1.6 SR9			
Jboss® 4.2.3 (Oracle JDK 6)		JDK 6 Update 30	JDK 6 Update 23	JDK 6 Update 16	JDK 6 Update 12
Jboss® 7.1.1.Final (Oracle JDK 6)	JRE 6 Update 43				
Database					
Microsoft SQL Server® 2005			SP3	SP3	SP2
Microsoft SQL Server 2008 R2	SP1	SP1			
Oracle 10g			10.2.0.4	10.2.0.4	10.2.0.4
Oracle 11g	11.2.0.3	11.2.0.3			
LDAP					
IBM Tivoli® Directory Server 6.0	FP6	FP6		FP6	FP6
Microsoft Active Directory® 2003			Yes	Yes	Yes
Microsoft Active Directory 2008	Yes	Yes			
Sun Java™ System Directory Server 5.x	5.2 P6	5.2 P6	5.2 P6	5.2 P6	5.2 P6

Table 1-1 Cisco Prime Service Catalog Platform Support Matrix (continued)

	Cisco Prime Service Catalog Release Version				
	9.4.1 R2/ 9.4.1/9.4	9.3.2/9.3.1	9.3	9.1	2008.3
Virtualization					
Virtualization Policy		<p>Cisco is dedicated to the running of its products on virtualized platforms subject to the notes below:</p> <ul style="list-style-type: none"> • Support for virtualized environments is conditioned on support of the guest operating system on which the Cisco product is running. • Cisco may attempt to address issues discovered in virtualized environments by recreating them in nonvirtual environments. Issues reported on VMware environments will be recreated on a VMware virtualized environment. • If a reported problem is likely caused by the virtualization layer, customers may be required to follow the guidance of the virtualization vendor's support which may include installing available patches or newer versions of the virtualization software. • Performance guidelines are based on dedicated, physical systems and should be adjusted accordingly for virtualized environments. 			



CHAPTER 2

Cisco Prime Service Catalog Installation and Configuration Guide

Overview

The Cisco Prime Service Catalog Installation and Configuration Guide is divided into the following sections:

- [“Prerequisites and Installation Overview” section on page 2-2](#): A quick reference on software and hardware requirements.
- [“Configuring Databases” section on page 2-9](#): Instructions for configuring your databases for use with Service Catalog.
- [“Preinstallation Configuration for JBoss” section on page 2-15](#): Instructions for preparing your computer for installing Service Catalog with JBoss Application Server.
- [“Preinstallation Configuration for WebLogic” section on page 2-17](#): Instructions for configuring WebLogic Application Server prior to installing Service Catalog.
- [“Preinstallation Configuration for WebSphere” section on page 2-34](#): Instructions for configuring WebSphere Application Server prior to installing Service Catalog.
- [“Running the Service Catalog Installer” section on page 2-52](#): Instructions for executing the Service Catalog installer.
- [“Postinstallation Configuration for JBoss” section on page 2-72](#): Instructions for starting the Service Catalog applications on JBoss Application Server.
- [“Postinstallation Configuration for WebLogic” section on page 2-75](#): Instructions for deploying the Service Catalog WAR files on WebLogic Application Server.
- [“Postinstallation Configuration for WebSphere” section on page 2-78](#): Instructions for deploying the Service Catalog WAR files on WebSphere Application Server.

Related Documentation

For information about performing an upgrade installation, see [Chapter 4, “Upgrade Guide”](#).

For information about installing the Reporting and IBM Cognos software, see [Chapter 3, “Reporting Guide”](#).

For information about configuring Directory Integration and Service Link, including LDAP, see the *Cisco Service Portal Integration Guide*.

For information about customizing Service Catalog stylesheets, see the *Cisco Service Portal Configuration Guide*.

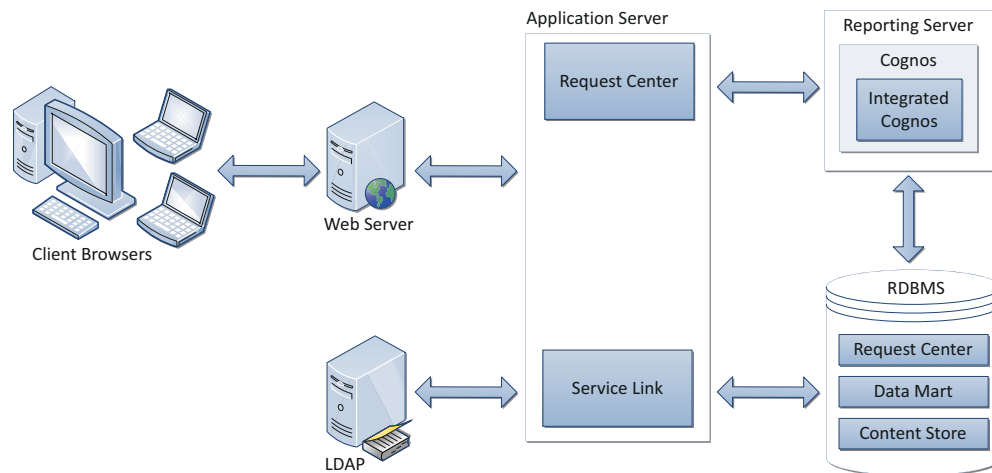
These guides are available on the <http://www.cisco.com> product download site.

Prerequisites and Installation Overview

Deployment Topology

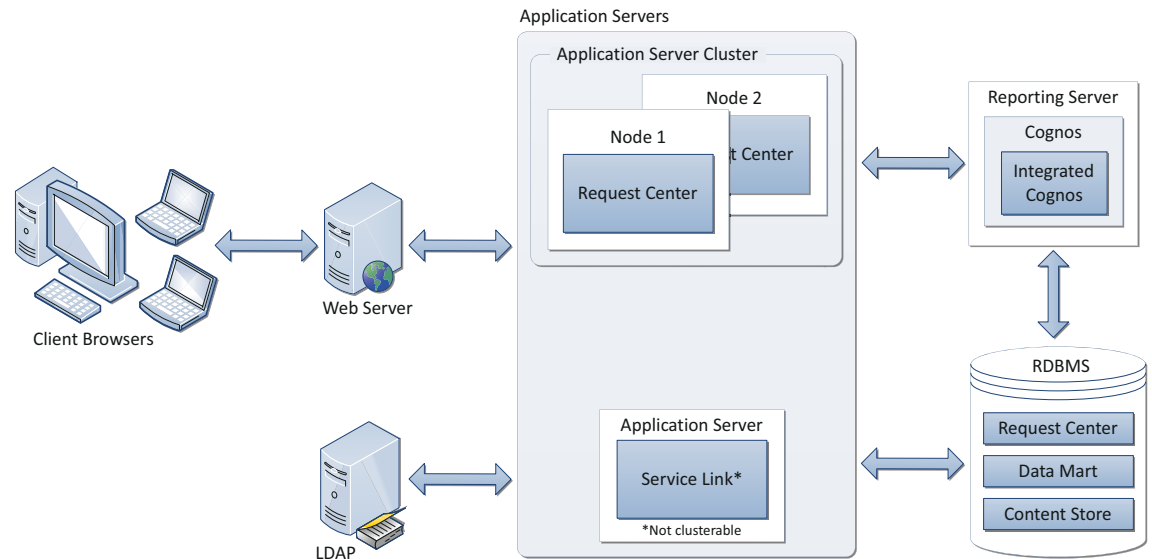
The following diagram depicts a typical deployment topology for Service Catalog with one application server containing both Request Center and Service Link applications:

Figure 2-1 Typical Topology



For a WebLogic or WebSphere Cluster environment, the topology may include multiple application server machines. The following diagram shows an example of an application server cluster with two nodes containing the Request Center application, and a standalone application server containing the Service Link application:

Figure 2-2 Clustered Topology



Subsequent sections in this chapter describe the software and hardware requirements for a typical deployment topology.

Software Requirements

The following table lists the supported third-party software for this release of Cisco Prime Service Catalog.

Table 2-1 Supported Software

Browser
Microsoft Internet Explorer 8
Microsoft Internet Explorer 7 (<i>supported for the My Services, Portal Manager, and Service Manager modules</i>)
Mozilla Firefox 3.6.x (<i>supported for the My Services, Portal Manager, and Service Manager modules</i>)
Browser Plugins
Adobe® Flash® Player is required to display the Service Link Home panel graph.
Web Server
Apache 2.2.x
IBM HTTP Server 7.0
Microsoft Internet Information Services (IIS) 7.5

Table 2-1 Supported Software (continued)**Application Server + Java Development Kit**

Oracle WebLogic 10.3 + Oracle JDK 6 Update 43 (or higher Update)

IBM WebSphere 7.0.0.27 (or higher 7.0.0.x) + with IBM Java 1.6.0 (SR13 or higher)

JBoss 7.1.1.Final + with Oracle JRE 6 Update 43 (or higher Update)

Application Server Operating System

Microsoft Windows Server 2008 R2 (64-bit) with SP1

Red Hat Enterprise Linux Server 5.6 (64-bit)

CentOS Linux 5.7 (64-bit)

Sun Solaris 10

IBM AIX 7.1

Database

Microsoft SQL Server 2008 R2, with SP1

(Express Edition of SQL Server is not recommended for production use)

Oracle 11g, version 11.2.0.3 (or higher 11.2.0.x)

(Express Edition of Oracle Database is not recommended for production use)

LDAP

Microsoft Active Directory 2008

Sun Java System Directory Server 5.2 P6

IBM Tivoli Directory Server 7.0

IBM Cognos®

(Note: IBM Cognos software is only supported on Microsoft Windows Server 2008 R2 64-bit operating system.)

IBM Cognos Business Intelligence Server, version 8.4.1, with FP4

IBM Cognos Data Manager, version 8.4.1, with FP4

Software Configuration Prerequisites

This section describes how to configure the software listed above for use with Service Catalog.

Browser

The following settings must be configured on the web browser used to connect to the Service Catalog application:

- Popup blocker is turned OFF.
- Cookies are enabled.
- For Internet Explorer, the Privacy Option must be set to Medium, High, or Low.
- To run an Asian language version of the system, you must install East Asian Language Support from the vendor of your web browser.
- Adobe Reader® is required on your web browser machine, in order to view and print reports.

**Note**

The Mozilla Firefox browser is only supported for **My Services**, **Portal Manager**, and **Service Manager** modules of the Service Catalog product. Thus, if you are an administrative user who needs to access other modules such as **Administration** or **Service Link**, you must use Internet Explorer (IE) 7 or 8. Furthermore, you will need IE 7 or 8 to complete your tasks during the installation verification process, described later in this guide.

Application Server

If you choose JBoss as your application server, you do not need to install JBoss software as a prerequisite. The Cisco Prime Service Catalog installer will automatically install the Jboss Application Server and deploy the Service Catalog applications. Follow the instructions in the [“Preinstallation Configuration for JBoss” section on page 2-15](#) to prepare your machine for installing Service Catalog with the JBoss Application Server.

If you choose WebLogic as your application server, you need to install the Oracle WebLogic Application Server software as a prerequisite on your machine. This guide does not contain instructions for installing the WebLogic software. However you will need to follow the instructions in the [“Preinstallation Configuration for WebLogic” section on page 2-17](#) to prepare your WebLogic Server for use with Service Catalog.

If you choose WebSphere as your application server, you need to install the IBM WebSphere Application Server software as a prerequisite on your machine. This guide does not contain instructions for installing the WebSphere software. However you will need to follow the instructions in the [“Preinstallation Configuration for WebSphere” section on page 2-34](#) to prepare your WebSphere Server for use with Service Catalog.

Clustering Considerations

To deploy Service Catalog in a clustered WebLogic or WebSphere environment, WebLogic or WebSphere Application Servers must be set up in a clustered configuration before you install Service Catalog. Additionally, if you want to provide full failover capability, then you must configure clusterable sessions on one or more of the clustered nodes. See your application server documentation for information on clustered configuration.

**Note**

A clustered configuration is not supported for the JBoss Application Server.

Web Server

As a prerequisite, your web server must already be installed and running. Your web server does not have to be installed on the same machine as your application server, or on the machine where you plan to execute the Service Catalog installer.

The web server must have the plugin configuration necessary to communicate with your application server. For example, if you choose to use Apache web server with WebLogic Application Server for your deployment topology, then as a prerequisite, you need to manually configure the plugin for your Apache server to connect to your WebLogic server. The plugin between the web server and the application server will not be configured by the Service Catalog installer.

If you choose to use Apache web server running on Solaris operating system, then your Apache installation must include all of the Apache Web Server optional modules.

IIS with JBoss

If you select JBoss as your application server on a Windows operating system, the Service Catalog installer can configure the tomcat plugin for the IIS web server automatically for you, if it detects that the IIS web server is already installed and running on the same Windows machine where you execute the installer.

You will see the "Configure IIS" option on the installation wizard during the installation, and can select or deselect that option as you desire. To enable this feature, the IIS web server must meet the following required settings:

- IIS Web Server is installed on the same Windows machine where you execute the Service Catalog installer
- IIS Web Server has the following Role Services: ISAPI Filters, ISAPI Extensions

Java Development Kit

Java Development Kit is a prerequisite software on your application server machine. As listed in [Table 2-1](#), only specific versions (and vendors) of JDK or JRE are supported for each type of application server. More information about how to configure Java for your application server is described in the [“Preinstallation Configuration for JBoss” section on page 2-15](#), the [“Preinstallation Configuration for WebLogic” section on page 2-17](#), and the [“Preinstallation Configuration for WebSphere” section on page 2-34](#).

Java 1.6 is also a prerequisite for the Cisco Prime Service Catalog installer. Therefore if you plan to execute the Service Catalog installer on a machine different from your application server, then you need to install either Java Runtime Environment or Java Development Kit, version 1.6.0_x, on that machine. If you plan to execute the Service Catalog installer on the same machine where your application server is installed, then just set JAVA_HOME environment variable to the same Java that is used by your application server.

Database

If you choose SQL Server 2008 R2 as your RDBMS, then you need to install the Microsoft SQL Server 2008 R2 software as a prerequisite (see [Table 2-1](#) for specific version).

If you choose Oracle 11g as your RDBMS, you need to install the Oracle 11g Database Server software as a prerequisite (see [Table 2-1](#) for specific version).

You do not need to install any SQL Server Client or Oracle Client connectivity software on your application server machine. The Cisco Prime Service Catalog installer will automatically install the JDBC driver needed for communicating with the database server.

Your database must be configured to enable TCP/IP for client connectivity. The [“Configuring Databases” section on page 2-9](#) contains instructions on how to create a database or schema for use with Service Catalog.

LDAP

Service Catalog can be integrated with your corporate LDAP server to access your company’s employee directory. This integration feature is optional, so an LDAP server is not a prerequisite software for installing Service Catalog.

If you plan to use the LDAP integration feature, see the *Cisco Service Portal Integration Guide*. Ensure that you use only one of the supported LDAP software listed in [Table 2-1](#).

IBM Cognos

Service Catalog is bundled with an OEM version of the IBM Cognos software, which is used for the (optional) Reporting module. To enable all Reporting and Advanced Reporting features in the Service Catalog application, the Cognos software must be installed in your deployment topology. This software can be installed after the Service Catalog software is installed. The instructions for installing and configuring Cognos software can be found in [Chapter 3, “Reporting Guide.”](#)

Other Miscellaneous Settings

X-Window or Xvfb

The Service Catalog installer is a GUI program. Therefore if you are on a UNIX or Linux operating system, you must have either an X-Window Server or an X11 emulator to display the installation wizard.

The Service Catalog installer does not support console mode or CLI mode. You must also have either X-Window Server or Xvfb (virtual framebuffer X server) installed and running on your application server machine, in order for the KPI Charts in the Reporting module to be displayed properly on the browser. If you are not using the KPI Charts feature in the Reporting module, then X-Window Server is not required for the application server machine.

Unzip Utility

You need to have an Unzip program (on Windows) or a GNU-compatible tar utility (on UNIX or Linux) available on your machine to extract the Cisco Prime Service Catalog software installer package.

Network – TCP/IP

TCP/IP must be configured on all host computers.

SMTP

You need to set up an SMTP server that listens to port 25, for email notification and a valid email address that the Service Catalog system will use to send out system alerts to the system administrator. You must provide the SMTP address and a valid email address during the installation of the Service Catalog software.

Hardware Requirements

Sizing

We recommend a minimum of three computers for a typical (nonclustered) deployment topology:

- Web Server + Application Server together
- Database Server
- Reporting Server

Your hardware configuration depends on site-specific factors. Contact the Cisco Technical Assistance Center (TAC) if you need more sizing recommendations.

The variables that can affect your hardware configuration include the following:

- the number of people who will use the system
- the number and frequency of service requests that the installed product will handle
- the nature of the service requests (complexity, type, and so on)
- reporting frequency
- systems integration and system availability requirements

Minimum Hardware Requirements for Application Server Host

Your application server machine must meet the following minimum hardware requirements:

- Intel Core 2 Duo processor or equivalent
- 4 GB RAM
- 40 GB *free* hard disk space



Note

If you have a clustered application server environment, the hardware requirements specified above are applicable for each node (that is, each machine) in your clustered environment.

Minimum Hardware Requirements for Web Server Host

If your web server resides on a different machine from your application server, then your web server machine must meet the following minimum hardware requirements:

- Intel Core 2 Duo processor or equivalent
- 2 GB RAM
- 2 GB *free* hard disk space

Minimum Hardware Requirements for Database Host

Your database server machine must meet the following minimum hardware requirements:

- Intel Core 2 Duo processor or equivalent
- 4 GB RAM
- 50 GB *free* hard disk space. (Disk space requirement is dependent on the *projected* size of your Service Catalog databases over time, to account for the growth in user data, service definitional data, transactional data, and reporting data.)

Minimum Hardware Requirements for Reporting Server Host

Your Cognos machine must meet the following minimum hardware requirements:

- Intel Core 2 Duo processor or equivalent
- 2 GB RAM
- 40 GB *free* hard disk space



Note

The IBM Cognos 8.4.1 software that is bundled with Service Catalog can be installed only on a Microsoft Windows Server 2008 R2 (64-bit) operating system.

Overview of Installation Process

This section provides a road map of the installation process for Service Catalog:

-
- Step 1** Follow the instructions provided in this section to ensure that you have adequately addressed the minimum hardware and software requirements, and installed the prerequisite software.
- Step 2** Create the RequestCenter and Datamart databases, as described in the [“Configuring Databases” section on page 2-9](#). Complete the “Database Information Worksheet” at the end of the section. You will need this information when running the Service Catalog installation wizard.
- Step 3** Prepare the application server for use with Service Catalog, by performing the tasks described in one of the following sections:
- a. For JBoss, go to the [“Preinstallation Configuration for JBoss” section on page 2-15](#).
 - b. For WebLogic, go to the [“Preinstallation Configuration for WebLogic” section on page 2-17](#).
 - c. For WebSphere, go to the [“Preinstallation Configuration for WebSphere” section on page 2-34](#).
- Complete the “Application Server Information Worksheet” at the end of the section. You will need this information when running the Service Catalog installation wizard.
- Step 4** Run the Service Catalog installer on the application server machine, as described in the [“Running the Service Catalog Installer” section on page 2-52](#). If you are performing an upgrade installation from a previous release, see [Chapter 4, “Upgrade Guide”](#) in conjunction with this section.
- Step 5** Perform the post installation tasks for your application server and verify your installation as described in one of the following sections:
- a. For JBoss, go to the [“Postinstallation Configuration for JBoss” section on page 2-72](#).
 - b. For WebLogic, go to the [“Postinstallation Configuration for WebLogic” section on page 2-75](#).
 - c. For WebSphere, go to the [“Postinstallation Configuration for WebSphere” section on page 2-78](#).
- To fully enable the Reporting features, you also need to install the Reporting software module and the Cognos software, and configure the Cognos Server to integrate with the Service Catalog application. When you are ready to do this, follow the instructions in [Chapter 3, “Reporting Guide”](#).
-

Configuring Databases

The Cisco Prime Service Catalog product requires two databases—a RequestCenter database and a Datamart database. Both databases must be of the same type and version of RDBMS, although they may reside on two different database instances. For example, both databases must be on the same version of SQL Server 2008 R2, or both databases must be on the same version of Oracle 11g. There cannot be a mixture of a SQL Server database and an Oracle database.

**Note**

The IBM Cognos software requires its own database called ContentStore, which is not described in this chapter. The instructions for configuring the ContentStore database are included in [Chapter 3, “Reporting Guide”](#). The ContentStore database must also be of the same type and version of RDBMS as the RequestCenter and Datamart databases.

Configuring Oracle

If you choose to use Oracle for your databases, follow the instructions in this section to prepare the Oracle server and to create two Oracle users: one for the RequestCenter database schema, and one for the Datamart database schema.

catcio.sql Package

-
- Step 1** Execute the following sql command as the Oracle “sys” user to find out if the catcio.sql package has been installed on the Oracle database:
- select count(*) from all_tables where owner='SYS' and table_name like 'IND_ONLINE\$';
- Step 2** If the returned value is ZERO, then log in to Oracle database as “sys” user (connect as “sysdba”), and install the catcio.sql package. This needs to be done before you proceed with the Service Catalog installation. The catcio.sql script is usually located in the \$ORACLE_HOME/rdbms/admin directory.
-

Redo Logs

Allocate at least 250 MB for the Redo logs for Oracle.

Creating Tablespace and User for RequestCenter Database

For a new installation, you can prepare the tablespaces and user for the RequestCenter database as described in this section before executing the Service Catalog installer, or you can let the Service Catalog installer create the database user on the default tablespaces for you by selecting the "Create Database" option presented by the installation wizard. The "Create Database" option of the Service Catalog installer is described in more detail in the "Running the Service Catalog Installer" section.

To create tablespace and user for RequestCenter Database:

-
- Step 1** Create a new tablespace named **REQUESTCENTER**, with initial size of 500 MB and AUTOEXTEND ON.
- Step 2** Create a new temporary tablespace named **REQUESTCENTER_TEMP**, with initial size of 30 MB and AUTOEXTEND ON.
- Step 3** Create a database user named **RCUser**, with default tablespace set to REQUESTCENTER and temporary tablespace set to REQUESTCENTER_TEMP. **RCUser** should be granted QUOTA UNLIMITED on the REQUESTCENTER tablespace.
- Step 4** Grant the following permissions to **RCUser**:
- ```
CREATE SESSION
CREATE TABLE
CREATE PROCEDURE
CREATE SEQUENCE
CREATE TRIGGER
CREATE VIEW
CREATE MATERIALIZED VIEW
CREATE SYNONYM
ALTER SESSION
CREATE ANY DIRECTORY
```



## Grant Execute Permission on DBMS\_LOB

Grant "RCUser" the permission to execute all functions inside the DBMS\_LOB package (which is owned by the SYS user):

- Login to Oracle database as SYS user (for example, sqlplus sys/<pwd>@<ORACLE\_SID> as sysdba.
- Execute the following commands:

```
GRANT EXECUTE ON DBMS_LOB TO RCUser;
COMMIT;
```

## Creating Tablespace and User for Datamart Database

For a new installation, you can prepare the tablespaces and user for the Datamart database as described in this section before executing the Reporting installer, or you can let the Reporting installer create the database user on the default tablespaces for you by selecting the "Create Database" option presented by the installation wizard. The "Create Database" option of the Reporting installer is described in more detail in Chapter 3 "Reporting Guide".

- 
- Step 1** Create a new tablespace named **DATAMART**, with initial size of 500 MB and AUTOEXTEND ON.
- Step 2** Create a new temporary tablespace named **DATAMART\_TEMP**, with initial size of 30 MB and AUTOEXTEND ON.
- Step 3** Create a database user named **DMUser**, with default tablespace set to DATAMART and temporary tablespace set to DATAMART\_TEMP. **DMUser** should be granted QUOTA UNLIMITED on the DATAMART tablespace.
- Step 4** Grant the following permissions to **DMUser**:

```
CREATE SESSION
CREATE TABLE
CREATE PROCEDURE
CREATE SEQUENCE
CREATE TRIGGER
CREATE VIEW
CREATE MATERIALIZED VIEW
CREATE SYNONYM
ALTER SESSION
```

---

## Configuring Microsoft SQL Server

If you choose to use Microsoft SQL Server for your databases, follow the instructions in this section to prepare the SQL Server, and to create two databases: RequestCenter and Datamart.

### Default Instance Versus Named Instance

The SQL Server must be set up as a *Default Instance*. *Named Instance* SQL Server is not supported.

## Mixed-Mode Authentication

The SQL Server must be configured to allow mixed-mode authentication.

## Creating RequestCenter Database and Login User

For a new installation, you can prepare the RequestCenter database and login user as described in this section before executing the Service Catalog installer, or you can let the Service Catalog installer create the database and login user for you by selecting the "Create Database" option presented by the installation wizard. The "Create Database" option of the Service Catalog installer is described in more detail in the "Running the Service Catalog Installer" section.

To create the RequestCenter database and login user:

- 
- Step 1** Create a database named **RequestCenter** in the *Default Instance* of SQL Server, with the following settings for the data file
- Initial size = 500 MB.
  - Autogrowth = By 10 percent
- Step 2** Set the collating sequence for the RequestCenter database to case-insensitive.
- Step 3** Put the RequestCenter database in SINGLE-USER mode, and execute the following command:
- ```
ALTER DATABASE RequestCenter SET READ_COMMITTED_SNAPSHOT ON.
```
- Step 4** Put the RequestCenter database back in MULTI-USER mode.
- Step 5** Create a SQL Server Login named **RCUser**, with the Default Database property set to "RequestCenter".



Note RCUser must be a SQL Server login account that authenticates to the SQL Server using SQL Server authentication method, and not Windows authentication method.

- Step 6** Ensure that the "Enforce Password Policy" option is unchecked in the Security setting properties for RCUser. Furthermore, the password for RCUser must contain only alphanumeric characters. For example, enter only letters and numbers for password. Do not enter any special characters like underlines, asterisks, brackets, and so on. Some combinations of these special characters could cause the installer to fail at product installation time with a "Database Connection Test failed" error message.
- Step 7** Assign this RCUser to be the **db_owner** of the "RequestCenter" database. Verify your setting to ensure that:
- The user name "RCUser" in the RequestCenter database is mapped to the login name "RCUser" in the SQL Server
 - The default schema is "dbo"
 - The user name "RCUser" has the "db_owner" database role membership.
-

Creating Datamart Database and User

For new installation, you can prepare the Datamart database and login user as described in this section before executing the Reporting installer, or you can let the Reporting installer create the database and login user for you by selecting the "Create Database" option presented by the installation wizard. The "Create Database" option of the Reporting installer is described in more detail in Chapter 3 "Reporting Guide".

To create the Datamart database and login user:

-
- Step 1** Create a database named **Datamart** in the *Default Instance* of SQL Server, with the following settings for the data file:
- Initial size = 500 MB
 - Autogrowth = By 10 percent
- Step 2** Set the collating sequence for the Datamart database to be case-insensitive.
- Step 3** Create a SQL Server Login named **DMUser**, with the Default Database property set to "Datamart".



Note DMUser must be a SQL Server login account that authenticates to the SQL Server using SQL Server authentication method, and not Windows authentication method.

- Step 4** Ensure that the "Enforce Password Policy" option is unchecked in the Security setting properties for DMUser. Furthermore, the password for DMUser must contain only alphanumeric characters. For example, enter only letters and numbers for password. Do not enter any special characters like underlines, asterisks, brackets, and so on. Some combinations of these special characters could cause the installer to fail at product installation time with a "Database Connection Test failed" error message.
- Step 5** Assign this DMUser to be the **db_owner** of the "Datamart" database. Verify your setting to ensure that:
- The user name "DMUser" in the Datamart database is mapped to the login name "DMUser" in the SQL Server
 - The default schema is "dbo"
 - The user name "DMUser" has the "db_owner" database role membership
-

Database Information Worksheet

Complete the following "Database Information Worksheet" by entering your configuration values in the "Value" column. You will need the information in this worksheet when you run the Service Catalog and Reporting installation wizards.

Table 2-2 Database Information Worksheet

Field	Description	Value
RequestCenter Database		
Database Type	The type of RDBMS. Enter Microsoft SQL Server or Oracle .	

Table 2-2 Database Information Worksheet (continued)

Field	Description	Value
Hostname	The Hostname or IP address of the Database Server for the RequestCenter database. For example, servername.domain.com. The default value is the full qualified domain name (FQDN) of the machine you are currently on.	
Port	The TCP/IP Port Number used by your Database Server. Valid port numbers are from 1 to 65535. For Microsoft SQL Server, the default value is 1433. For Oracle, the default value is 1521.	
Database Name (Microsoft SQL Server only)	The name of the RequestCenter database. By default this is RequestCenter.	
Database SID (Oracle only)	The SID of the Oracle server where the RequestCenter database resides. By default this is ORCL.	
Username	The username that the Service Catalog application uses to authenticate with the RequestCenter database at runtime. The default username is RCUser.	
Password	The password for the Database User.	
Oracle Advanced Options only		
Enable multiple tablespaces?	Check the check box to enable multiple tablespaces. Enter the names of the tablespaces below. This is unchecked by default.	
Default tablespace	If you checked "Enable multiple tablespaces?" above, enter the Default tablespace. The default is CCPDATA01.	
Directory tablespace	If you checked "Enable multiple tablespaces?" above, enter the Directory tablespace. The default is CCPDATA02.	
Transaction tablespace	If you checked "Enable multiple tablespaces?" above, enter the Transaction tablespace. The default is CCPDATA03.	
Index tablespace	If you checked "Enable multiple tablespaces?" above, enter the Index tablespace. The default is CCPINDX.	
Reporting Datamart Database		
Hostname	The Hostname or IP address of the Database Server for the Datamart database. For example, servername.domain.com. The default value is the full qualified domain name (FQDN) of the machine you are currently on.	
Port	The TCP/IP Port Number used by your Database Server. Valid port numbers are from 1 to 65535. For Microsoft SQL Server, the default value is 1433. For Oracle, the default value is 1521.	
Database Name (Microsoft SQL Server only)	The name of the Datamart database. By default this is Datamart.	
Database SID (Oracle only)	The SID of the Oracle server where the Datamart database resides. By default this is ORCL.	
Username	The User ID that Service Catalog application uses to authenticate with the Datamart database at runtime. The default username is DMUser.	
Password	The password for the Datamart Database User.	

Preinstallation Configuration for JBoss

This section contains instructions for preparing your computer, prior to installing Service Catalog with JBOSS application server.

This release of Service Catalog supports JBoss Application Server on the following operating systems, web servers, and Java Runtime Environment:

Table 2-3 JBoss Supported Operating System, Web Server, and Java

JBoss Application Server	Operating System	Web Server	Java
JBoss AS 7.1.1.Final	Windows Server 2008 R2 (64-bit), with SP1	Microsoft Internet Information Services (IIS) 7.5	Oracle JRE 6 Update 43 (or higher update)
JBoss AS 7.1.1.Final	Red Hat Enterprise Linux Server 5.6 (64-bit)	Apache 2.2.x	Oracle JRE 6 Update 43 (or higher update)
JBoss AS 7.1.1.Final	CentOS Linux 5.7 (64-bit)	Apache 2.2.x	Oracle JRE 6 Update 43 (or higher update)

Installing Java

In this section, you will install Oracle Java Runtime Environment as a prerequisite, and prepare the environment variables on your computer.

-
- Step 1** Download Oracle JRE 6 Update 43 (or higher Update) from the Oracle website. Ensure that you download the correct version of JRE 6. Only Update 43 or later is supported. JRE or JDK is not supported.
 - Step 2** Install Oracle JRE 6 on your computer.
 - Step 3** Set the system environment variable JAVA_HOME to point to the Oracle JRE that you installed.
 - Step 4** On a Windows operating system, add “%JAVA_HOME%\bin” to the %PATH% environment variable. On Linux, add “\$JAVA_HOME/bin” to the \$PATH environment variable.
-

Installing JBoss Software

Cisco Prime Service Catalog is bundled with the JBoss AS 7.1.1.Final software distribution. If you select JBoss as the application server on the intallation wizard, the Service Catalog installer will automatically install and deploy the JBoss software on the same machine where you are running the installer. You do not need to install the JBoss Application Server software as a prerequisite. We recommend that you let the Service Catalog installer install the JBoss software for you.

You can choose to install only the Request Center application on your computer, only the Service Link application on your computer, or both Request Center and Service Link applications together on the same computer. When you choose to install both applications together on the same computer, the installer will always create two separate JBoss server instances, one for the Request Center application, and one for the Service Link application

The JMS service is configured in the JBoss server where the Request Center application resides.

Preparing IIS Web Server

If you are running the Service Catalog installer on a Windows operating system, the installer can automatically configure the tomcat plugin for the IIS web server, and configure the JBoss servers as Windows services. The options for "Configure IIS" and "Configure windows services" are presented on the installation wizard, and you can select or deselect each option as you desire.

If you want the Service Catalog installer to configure the tomcat plugin for the IIS web server, then you need to perform the following prerequisite tasks:

- Install IIS on the same Windows operating system where you plan to execute the installer.
- Add the following role services for IIS: ISAPI Extensions, ISAPI Filters.
- You will prompted to enter the name of the IIS web site. You can enter either "Default Web Site" or the name of another web site. If you enter the name of another website, then you must create that website as a prerequisite.

If you are running the Service Catalog installer on a Linux operating system, then the installer will install only the JBoss software. It will not configure the tomcat plugin for the Apache web server, and will not configure JBoss servers as Linux services.

Application Server Information Worksheet

Complete the following "Application Server Information Worksheet" by entering your configuration values configuration values in the "Value" column. The information in this worksheet will be needed when you run the Service Catalog or the Reporting installer.

Table 2-4 **Application Server Information Worksheet**


Field	Description	Value
Request Center hostname	The fully qualified domain hostname or IP address of the computer where you plan to execute the installer, and choose to install the RequestCenter application.	
Service Link hostname	The fully qualified domain hostname or IP address of the computer where you plan to execute the installer, and choose to install the Service Link application. If you choose to install both Request Center and Service Link applications on the same computer, the installer will automatically set this value to the same value as the "Request Center hostname".	
IIS Website	The name of the IIS website on your computer where you want the installer to configure the tomcat plugin.	
Queue hostname	The default value is "Default Web Site". The fully qualified domain hostname or IP address of the computer where the JBoss JMS service is running. Since the JMS service is always configured in the same JBoss server where the RequestCenter application resides, this value should be the same as the "Request Center hostname" above.	
Custom content archive	If you plan to install "custom content", enter the path to the custom content archive file. <div style="text-align: center;">  Note </div> <div style="border: 1px solid black; padding: 2px; margin-top: 5px;">The archive must be in the Zip format.</div>	

Table 2-4 **Application Server Information Worksheet**

Field	Description	Value
SMTP hostname	The fully qualified domain hostname or IP address of the SMTP server. Ensure that your computer can connect to this SMTP server.	
SMTP port	The SMTP server must listen to port 25.	
System email address	The sender email address to be used for system generated notifications.	

What's Next?

Your JBoss environment is ready. You can proceed to the [“Running the Service Catalog Installer” section on page 2-52](#).

Preinstallation Configuration for WebLogic

This section contains instructions for configuring the Oracle WebLogic Application Server, prior to installing Service Catalog.

This release of Service Catalog supports the WebLogic Application Server on the following operating systems and Java Development Kit:

Table 2-5 **Supported Operating Systems and JAVA**

Oracle WebLogic Application Server	Operating System	Java
Version 10.3	Windows Server 2008 R2 (64-bit), with SP1	Oracle JDK 6 Update 43 (or higher Update)
Version 10.3	Red Hat Enterprise Linux Server 5.6	Oracle JDK 6 Update 43 (or higher Update)
Version 10.3	Solaris 10	Oracle JDK 6 Update 43 (or higher Update)

**Note**

Oracle JRockit is NOT supported.

It is assumed that you have already installed WebLogic Application Server 10.3 software on one of the supported operating systems. You will follow instructions in this section to create and configure a new managed WebLogic Server, exclusively for the Cisco Prime Service Catalog application.

Installing Java

Although the WebLogic software installation is bundled with some version of JRockit or Oracle Java, you will not use any bundled JRockit or Java. Instead, you need to download and install Oracle JDK 6. In the next section, you will configure your WebLogic Server to use this version of Oracle JDK 6.

-
- Step 1** Access the Oracle JDK 6 download web site to download Oracle JDK 6.
- Step 2** Download the correct version of Oracle JDK 6 for your OS platform. See [Table 2-5](#) for the supported Update version of JDK 6.
- Step 3** Install Oracle JDK 6 on the same machine where WebLogic software is installed.
- Step 4** After Oracle JDK 6 is installed, navigate to the `<WL_HOME>\common\bin` directory.
- Step 5** Modify the following file:
- (For Windows) Modify **commEnv.cmd** as follows:
- set JAVA_HOME="*<the installation directory for Oracle JDK 6>*"
 - set JAVA_VENDOR=Sun
- (For UNIX or Linux) Modify **commEnv.sh** as follows:
- JAVA_HOME="*<the installation directory for Oracle JDK 6>*"
 - JAVA_VENDOR=Sun
- Step 6** Restart all WebLogic servers, including the WebLogic Administration Server and Node Manager.

**Note**

If you have a WebLogic Cluster environment, perform Steps 3–6 on every node in the Cluster.

Downloading Service Catalog Software Image

In this section, you will download the electronic software distribution for Service Catalog.

-
- Step 1** Access the Cisco product download web site and authenticate with the user name and password provided to you.
- Step 2** Search by product name, or navigate within the product selector to locate the product you have purchased. (Navigation: **Downloads Home > Products > Cloud and Systems Management > Service Catalog > Cisco Cloud Portal**).
- Step 3** Choose **Product Install** and click the link for the appropriate operating system.
- Step 4** A list of folders for the different releases is displayed. Locate Release 9.4.1 R2 and click it.
- Step 5** Download file **CPSC_9.4.1R2_win.zip** for the Windows operating system, or file **CSP_9.4.1_R2_unix.tar.gz** CPSC_9.4.1R2_unix.tar.gz or the UNIX/Linux operating system.
- Step 6** Extract the software image to a directory on your application server machine. If you have WebLogic Cluster environment, then extract the Cisco Prime Service Catalog software on the machine where the WebLogic Administration Server is running. For example, extract the software to `C:\Cisco_Download` (for Windows) or `/opt/Cisco_Download` (for UNIX/Linux). For the rest of this section, this directory is referred to as the `<ServiceCatalog_Software_Dir>`.

**Note**

The CPSC_9.4.1R2_unix.tar.gz file must be untarred using a GNU-compatible tar utility. Older tar utilities may have problems unzipping tar files that contain filenames longer than 100 characters.

Installing Custom Java Libraries

In this section, you will copy several java library files from the `<ServiceCatalog_Software_Dir>` to the `<WL_HOME>` directory, and add these jar files to the class paths. Afterward, you need to restart the WebLogic servers in order to pick up the new java libraries.

-
- Step 1** Under the “`<WL_HOME>`” directory, create a subdirectory called “**cisco**”. And under “cisco”, create two sub-directories called “endorsed” and “lib”.
- Step 2** Copy the following jar files from the “`<ServiceCatalog_Software_Dir>\preinstall\weblogic\jre_lib_endorsed`” directory to the “`<WL_HOME>\cisco\endorsed`” directory:
- serializer.jar
 - xalan.jar
 - xercesImpl.jar
 - xml-apis.jar
- Step 3** Copy the following jar files from the “`<ServiceCatalog_Software_Dir>\preinstall\weblogic\cisco_lib`” directory to the “`<WL_HOME>\cisco\lib`” directory:
- commons-lang-2.4.jar
 - geronimo-ccpp_1.0_spec-1.0-beta.jar
 - newscale_drivers.jar
 - pluto-container-api-2.0.2.jar
 - pluto-container-driver-api-2.0.2.jar
 - pluto-taglib-2.0.2.jar
 - portlet-api_2.0_spec-1.0.jar
- Step 4** Navigate to the “`<WL_HOME>\common\bin`” directory and modify the following file:
(For Windows) Modify **commEnv.cmd** as follows:
- a. Search for the line that contains the parameter “`WEBLOGIC_CLASSPATH=`”.
 - b. Add the value `%WL_HOME%\cisco\lib\commons-lang-2.4.jar`; to the beginning of the existing value. Do not forget to include the semicolon character.
 - c. Append the value `;%WL_HOME%\cisco\lib\newsacle_drivers.jar` to the end of the existing value. Do not forget to include the semicolon character.

For example, after you modify the `WEBLOGIC_CLASSPATH`, it may look like:

```
WEBLOGIC_CLASSPATH="%WL_HOME%\cisco\lib\commons-lang-2.4.jar;
%PATCH_CLASSPATH%;%JAVA_HOME%\lib\tools.jar;%WL_HOME%\server\lib\weblogic_sp.jar;%WL_H
OME%\server\lib\weblogic.jar;%FEATURES_DIR%\weblogic.server.modules_10.3.0.0.jar;%WL_H
OME%\server\lib\webservices.jar;%ANT_HOME%\lib\ant-all.jar;%ANT_CONTRIB%\lib\antcontri
b.jar;%WL_HOME%\cisco\lib\newsacle_drivers.jar"
```

(For UNIX or Linux) Modify **commEnv.sh** as follows:

- a. Search for the line that contains the parameter “`WEBLOGIC_CLASSPATH=`”.
- b. Add the value `${WL_HOME}/cisco/lib/commons-lang-2.4.jar${CLASSPATHSEP}` to the beginning of the existing value.

- c. Append the value `${CLASSPATHSEP}${WL_HOME}/cisco/lib/newscale_drivers.jar` to the end of the existing value.

For example, after you modify the `WEBLOGIC_CLASSPATH`, it may look like:

```
WEBLOGIC_CLASSPATH="${WL_HOME}/cisco/lib/commons-lang-2.4.jar${CLASSPATHSEP}${PATCH_CLASSPATH}${CLASSPATHSEP}${JAVA_HOME}/lib/tools.jar${CLASSPATHSEP}${WL_HOME}/server/lib/weblogic_sp.jar${CLASSPATHSEP}${WL_HOME}/server/lib/weblogic.jar${CLASSPATHSEP}${FEATURES_DIR}/weblogic.server.modules_10.3.0.0.jar${CLASSPATHSEP}${WL_HOME}/server/lib/webservices.jar${CLASSPATHSEP}${ANT_HOME}/lib/ant-all.jar${CLASSPATHSEP}${ANT_CONTRIB}/lib/ant-contrib.jar${CLASSPATHSEP}${WL_HOME}/cisco/lib/newscale_drivers.jar"
```

- Step 5** Restart the WebLogic Administration Server and WebLogic Node Manager. You must restart all WebLogic servers for them to pick up the custom Java libraries that you just installed.



Note

If you have a WebLogic Cluster environment, perform Steps 1–5 on every node in the Cluster.

Creating a Managed WebLogic Server

In this section you will create a new managed WebLogic Server, to be used exclusively for Service Catalog.

- Step 1** Log on to the WebLogic Administration Console.
- Step 2** If your WebLogic was installed in **PRODUCTION** mode, click **Lock & Edit** so that you can proceed to make changes. Otherwise, you can skip this step.
- Step 3** Choose **Environment > Servers**.
- Step 4** Click **New**. The “Create a New Server” panel appears.

Figure 2-3 Create New Weblogic Server

Create a New Server

Back Next Finish Cancel

Server Properties

The following properties will be used to identify your new server.

* Indicates required fields

What would you like to name your new server?

* **Server Name:** server1

Where will this server listen for incoming connections?

Server Listen Address:

* **Server Listen Port:** 8001

Should this server belong to a cluster?

☒ **No, this is a stand-alone server.**

☐ **Yes, create a new cluster for this server.**

Back Next Finish Cancel

- Step 5** Enter a Server Name (for example, “server1”). Enter a port number different from 7001 (for example, 8001), because port 7001 is most likely already used by the WebLogic Administration Server. Choose the **No, this is a stand-alone server** option.
- Step 6** Click **Finish**. Your newly created WebLogic Server appears on the list.
- Step 7** Click the newly created Server “**server1**” to open its properties.
- Step 8** Choose **Configuration > General**.

Figure 2-4 Configuration – General Settings


Settings for server1

Configuration Protocols Logging Debug Monitoring Control Deployments Serv

General Cluster Services Keystores SSL Federation Services Deployment Mig

Save


Use this page to configure general features of this server such as default network communicat

[View JNDI Tree](#) 

Name: server1

Machine: vmsw06.oakqas.celosis.com

Cluster: (Stand-Alone)

 **Listen Address:**

☒ **Listen Port Enabled**

Listen Port:

☐ **SSL Listen Port Enabled**

- Step 9** In the Machine drop-down list, select a hostname where the WebLogic server will run, and click **Save**.
- Step 10** Choose **Configuration > Keystores**.
- Step 11** In the Keystores drop-down list, choose **Custom Identity and Java Standard Trust** and click **Save**.

Setting the Arguments for Java Virtual Machine

- Step 1** Choose **Configuration > Server Start**.
- Step 2** Enter values for the following parameters:
- Arguments** = -server -Xms1024m -Xmx1024m -XX:PermSize=256m
 -XX:MaxPermSize=256m -XX:NewRatio=3
 -Dweblogic.ext.dirs=<WL_HOME>/cisco/lib-Djava.endorsed.dirs=<WL_HOME>/cisco/endorsed
 -XX:CompileCommand=exclude,com/newscale/bfw/signon/filters/AuthenticationFilter,doFilter
 -XX:CompileCommand=exclude,org/apache/xml/dtm/ref/sax2dtm/SAX2DTM,startElement
 -XX:CompileCommand=exclude,org/exolab/castor/xml/Marshaller,marshal
 -XX:CompileCommand=exclude,org/apache/xpath/compiler/XPathParser,UnionExpr
 -XX:CompileCommand=exclude,org/apache/oro/text/regex/Perl5Compiler,__parseAtom
 (where <WL_HOME>/cisco/lib and <WL_HOME>/cisco/endorsed are the directories described in the [“Installing Custom Java Libraries”](#) section on page 2-19).
 - User Name** = weblogic
 - Password** = <the password for the “weblogic” username>
 - Confirm Password** = <re-enter the password for the “weblogic” username>
- Step 3** Click **Save**.
- Step 4** If your WebLogic was installed in PRODUCTION mode, click **Activate Changes**. Otherwise, you can skip this step.
- Step 5** Open the **Control** tab.

Figure 2-5 Start Weblogic Server

Servers(Filtered - More Columns Exist)

<div> Start Resume Suspend ▾ Shutdown ▾ Restart SSL </div> <div>Showing 1 to 2 of 2 Previous Next</div>				
<input type="checkbox"/>	Server	Machine	State	Status of Last Action
<input type="checkbox"/>	AdminServer(admin)		RUNNING	None
<input checked="" type="checkbox"/>	server1	vm5w06.oakqas.celosis.com	RUNNING	TASK COMPLETED

- Step 6** Choose the WebLogic Server named **“server1”**, then click **Start**. Wait until you see State=RUNNING. Your new WebLogic Server has now been configured to use Oracle JDK 6 and the Cisco java libraries that you installed in this section.

Configurations for WebLogic Cluster

The Service Catalog product is comprised of two enterprise applications named “RequestCenter” and “ServiceLink”. However, the Service Catalog installer does not automatically deploy the RequestCenter and ServiceLink applications on your WebLogic Server for you. The installer will generate two WAR files (RequestCenter.war for the RequestCenter application, and ISEE.war for the ServiceLink application) which are customized for your WebLogic environment. After you execute the Service Catalog installer, you will need to follow the instructions in a later section of this chapter to manually deploy RequestCenter.war and ISEE.war on your WebLogic Server.

The RequestCenter.war file and ISEE.war file can be deployed together in the same WebLogic Server even though they are two separate enterprise applications. However, if you are setting up a WebLogic Cluster environment with multiple nodes (where each node is a separate computer), you need to perform the additional configurations as follows:

-
- Step 1** Perform the tasks described in the [“Installing Java” section on page 2-15](#) and [“Installing Custom Java Libraries” section on page 2-19](#) on each node (that is, each computer) in the Cluster.
 - Step 2** Follow the instructions in the [“Creating a Managed WebLogic Server” section on page 2-20](#) to create the WebLogic Server for each node and to set the JVM arguments for each server, before you add these servers to the Cluster.
 - Step 3** Each WebLogic Server in your Cluster must be configured to use the same port number. For example, your Cluster contains two nodes. If the WebLogic Server on Node 1 is running on port 8001, then the WebLogic Server on Node 2 must also be configured to run on port 8001.
 - Step 4** RequestCenter.war file is deployed on the WebLogic Cluster. But, the ISEE.war file cannot be deployed in the same Cluster; it must be deployed on a stand-alone WebLogic Server that is not a member of any Cluster. Therefore, if you have a clustered WebLogic environment, then you must create an additional stand-alone WebLogic Server (that is, not a member of the Cluster), to be used for ISEE.war. For the rest of the chapter, this stand-alone WebLogic Server is referred to as the “Service Link WebLogic Server”. For this stand-alone “Service Link WebLogic Server”, the JVM arguments can be set as follows:


```
Arguments = -server -Xms1024m -Xmx1024m -XX:PermSize=256m -XX:MaxPermSize=256m
-XX:NewRatio=3-Dweblogic.ext.dirs=<WL_HOME>/cisco/lib
-Djava.endorsed.dirs=<WL_HOME>/cisco/endorsed
(where <WL_HOME>/cisco/lib and <WL_HOME>/cisco/endorsed
are the directories described in the “Installing Custom Java Libraries” section on page 2-19).
```
 - Step 5** If the stand-alone “Service Link WebLogic Server” resides on another machine, then make sure that you also performed the tasks described in the [“Installing Java” section on page 2-15](#) and [“Installing Custom Java Libraries” section on page 2-19](#) on that WebLogic machine. The port number for the “Service Link WebLogic Server” does not have to match the port numbers of the WebLogic Servers in the Cluster.
-

Configuring JMS Server

In this section, you will configure a JMS Server and JMS Queues that will be used by Service Catalog.



Note

If RequestCenter.war and ISEE.war are deployed together on the same nonclustered WebLogic Server, then the JMS configurations described in this section are performed for that WebLogic Server. However, if you have a WebLogic Cluster environment, then the JMS configurations are performed for the “Service Link WebLogic Server”.

Creating a Persistent Store

-
- Step 1** On your computer, cd to <WL_HOME>.
 - Step 2** Create a subdirectory called **CiscoFileStore**.
 - Step 3** Log on to the WebLogic Administration Console.
 - Step 4** If your WebLogic was installed in PRODUCTION mode, click **Lock & Edit**. Otherwise, you can skip this step.
 - Step 5** Choose **Services > Persistent Stores**.
 - Step 6** Choose **New > Create FileStore**. The “Create a New File Store” panel appears.
 - Step 7** In the Name field, enter **CiscoFileStore**.
 - Step 8** In the Target drop-down list, choose your WebLogic Server.
 - Step 9** In the Directory text box, enter the full path of the CiscoFileStore directory you created in Step 2 above (for example, /opt/bea/wlserver_10.3/CiscoFileStore).
 - Step 10** Click **OK**.
-

Creating a JMS Server

-
- Step 1** On the WebLogic Administration Console, choose **Services > Messaging**, and click **JMS Servers**.
 - Step 2** Click **New**. The “Create a New JMS Server” panel appears.
 - Step 3** In the Name field, enter **CiscoJMSServer**.
 - Step 4** In the Persistent Store drop-down list, choose the Persistent Store named **CiscoFileStore**.
 - Step 5** Click **Next**.
 - Step 6** In the Target drop-down list, choose your WebLogic Server. (If you have a WebLogic Cluster environment, click **Service Link WebLogic Server**.)
 - Step 7** Click **Finish**.
-

Creating a JMS Module

-
- Step 1** On the WebLogic Administration Console, choose **Services > Messaging**, and click **JMS Modules**.
 - Step 2** Click **New**. The Create JMS System Module panel appears.
 - Step 3** In the Name field, enter **CiscoJMSModule**. and click **Next**.
 - Step 4** Choose your WebLogic Server as the target. (If you have a WebLogic Cluster environment, choose **Service Link WebLogic Server**.) and click **Next**.
 - Step 5** Click **Finish**.
 - Step 6** Click the newly created JMS Module named **CiscoJMSModule** to open its properties.
 - Step 7** Open the **Subdeployments** tab and click **New**.
 - Step 8** In the Subdeployment Name field, enter **CiscoSubdeployment** and click **Next**.

- Step 9** Choose the JMS Server named **CiscoJMSServer**. and click **Finish**.
-

Creating Connection Factory

- Step 1** On the WebLogic Administration Console, choose **Services > Messaging**, and click **JMS Modules**.
- Step 2** Click the JMS Module named **CiscoJMSModule** to open its properties.
- Step 3** Open the **Configuration** tab and click **New**.
- Step 4** Choose the **Connection Factory** option and click **Next**.
- Step 5** In the Name and JNDI Name fields, enter **NSConnectionFactory** and click **Next**.
- Step 6** Click **Advanced Targeting**.
- Step 7** In the Subdeployments drop-down list, choose **CiscoSubdeployment**. The screen is refreshed to show that the JMS Server named “CiscoJMSServer” is already selected.
- Step 8** Click **Finish**.
-

Creating JMS Templates

- Step 1** On the WebLogic Administration Console, choose **Services > Messaging**, and click **JMS Modules**.
- Step 2** Click the JMS Module named **CiscoJMSModule** to open its properties.
- Step 3** Open the **Configuration** tab and click **New**.
- Step 4** Choose the **JMS Template** option and click **Next**.
- Step 5** In the Name field, enter **ISEEInboundQueueTemplate** and click **OK**.
- Step 6** Repeat the above steps four more times to create four more JMS Templates with the following names:
- ISEEOutboundQueueTemplate
 - BEEERequisitionsQueueTemplate
 - BEEEEAuthorizationsQueueTemplate
 - BEEEEInboundQueueTemplate
-

Creating Queues

- Step 1** On the WebLogic Administration Console, choose **Services > Messaging**, and click **JMS Modules**.
- Step 2** Click the JMS Module named **CiscoJMSModule** to open its properties.
- Step 3** Open the **Configuration** tab and click **New**.
- Step 4** Choose the **Queue** option.
- Step 5** Click **Next**.
- Step 6** In the Name and JNDI Name fields, enter **ISEEInboundQueue**.

- Step 7** In the Template drop-down list, choose the **ISEEInboundQueueTemplate** that you created and click **Next**.
- Step 8** In the Subdeployments drop-down list, choose **CiscoSubdeployment**. The screen is refreshed to show that the JMS Server named “CiscoJMSServer” is already selected.
- Step 9** Click **Finish**.
- Step 10** Repeat the above steps four more times to create four more JMS Queues with the following names:

Name & JNDI Name	Template	Subdeployments
ISEEOutboundQueue	ISEEOutboundQueueTemplate	CiscoSubdeployment
BEEERequisitionsQueue	BEEERequisitionsQueueTemplate	CiscoSubdeployment
BEEERequisitionsQueue	BEEERequisitionsQueueTemplate	CiscoSubdeployment
BEEERequisitionsQueue	BEEERequisitionsQueueTemplate	CiscoSubdeployment
BEEERequisitionsQueue	BEEERequisitionsQueueTemplate	CiscoSubdeployment

- Step 11** If your WebLogic was installed in PRODUCTION mode, click **Activate Changes**. Otherwise, you can skip this step.

Configuring JDBC Data Sources

In this section, you will configure two JDBC Data Sources to point to the RequestCenter database and Datamart database that you created in the “[Configuring Databases](#)” section on page 2-9.

Use the worksheet that you filled out at the end of the “[Configuring Databases](#)” section on page 2-9 to retrieve the necessary database information.

- Step 1** Log on to the WebLogic Administration Console.
- Step 2** If your WebLogic was installed in PRODUCTION mode, click **Lock & Edit**. Otherwise, you can skip this step.
- Step 3** Choose **Services > JDBC**, click **Data Sources**.
- Step 4** Click **New**.
- Step 5** Update the information for this panel as provided in [Table 2-6](#) and click **Next**.

Table 2-6

Field	Definition
Name	Enter REQUESTCENTERDS
JNDI Name field	Enter eis/REQUESTCENTERDS
Database Type drop-down list	Choose Other

- Step 6** On the next panel, just click **Next**.
- Step 7** Update the information for this panel as provided in [Table 2-7](#) and click **Next**.

Table 2-7

Field	Definition
Database Name	Enter the name of the RequestCenter database you created in the “Configuring Databases” section on page 2-9 .
Host Name	Enter the database server name
Port	Enter the database port number
Database User Name	Enter the name of the db_owner (or schema user) of the RequestCenter database (for example, enter RCUser).
Password	Enter the password for the Database User Name
Confirm Password	Re-enter the password for the Database User Name

Step 8 Update the information for this panel as provided in [Table 2-6](#) and click **Next**.

**Caution**

Do not click the Test Configuration button.

Table 2-8

Field	Definition
Driver Class Name	Enter the value (one string) com.newscale.jdbc.UnifiedDriver
URL	Enter the following value (one string): For SQL Server: jdbc:newscale:sqlserver://<db_server>:<db_port> (For example, jdbc:newscale:sqlserver://stan.celosis.com:1433) For Oracle: jdbc:newscale:oracle://<db_server>:<db_port>;SID=<oracle_sid> (For example, jdbc:newscale:oracle://sam.celosis.com:1521;SID=rosewood)
Database User Name	Enter the name of the db_owner (or schema user) of the RequestCenter database (for example, enter RCUser).
Password	Enter the password for the Database User Name. nter the password for the Database User Name.

Field	Definition
Confirm Password	Re enter the password for the Database User Name.
Properties	<p>Enter the following name-value pairs (one per line):</p> <p>For SQL Server:</p> <pre> user=<database_user_name> DatabaseName=<database_name> selectMethod=direct alwaysReportTriggerResults=true insensitiveResultSetBufferSize=16384 useServerSideUpdatableCursors=false maxPooledStatements=0 SendStringParametersAsUnicode=true </pre> <p>For Oracle:</p> <pre> user=<database_user_name> SendStringParametersAsUnicode=true </pre>

Step 9 Choose your WebLogic Server as the Target.



Note

If you have a WebLogic Cluster environment, then choose both the Cluster name and the “**Service Link WebLogic Server**” as the Targets for this data source.

Step 10 Click **Finish**.

The newly created data source named “REQUESTCENTERDS” should appear on the Summary of JDBC Data Sources panel. Verify that the JNDI Name and Target information for this data source is correct.

Step 11 Click **REQUESTCENTERDS** to open its properties.

Step 12 Choose **Configuration > Connection Pool**.

Step 13 Change the values for the following parameters on the screen:

- **Initial Capacity = 20**
- **Maximum Capacity = 80**

Step 14 Click **Save**.

Step 15 In Connection Pool tab, at the bottom of the panel, choose **Advanced**.

Figure 2-6 Connection Pool – Advanced Settings

— Advanced —

☒ Test Connections On Reserve

Test Frequency:

Test Table Name:

Seconds to Trust an Idle Pool Connection:

Step 16 Click the **Test Connections On Reserve** option.

Step 17 In the Test Table Name field, enter the following value, then click **Save**:

SQL select * from CnfParams

Step 18 Create another Data Source for the Datamart database, by repeating the above steps, but set the applicable values for the Datamart database instead of the RequestCenter database:

- **Name = DATAMARTDS**
- **JNDI Name = eis/DATAMARTDS**
- **Target = <If you have a clustered WebLogic environment, you only need to choose the Cluster name as the Target for this data source. You do not need to include the “Service Link WebLogic Server” as a target.>**
- **Initial Capacity = 2**
- **Maximum Capacity = 20**
- **Test Table name = SQL select * from DM_DIRPERSON**

Step 19 If your WebLogic was installed in PRODUCTION mode, click **Activate Changes**. Otherwise, you can skip this step.

Restarting WebLogic Server

You must restart your WebLogic Server in order for it to pick up the new JMS and Data Sources configurations.

Step 1 Restart your WebLogic Server.



Note

If you have WebLogic Cluster environment, restart all the WebLogic servers in the Cluster as well as the “Service Link WebLogic Server”.

Step 2 Once the WebLogic Server is started successfully, navigate to its **Configuration > General** tab.

Figure 2-7 JNDI Tree

Step 3 Click the link called **View JNDI Tree** right above the Name field. The JNDI Viewer window appears.

Step 4 In the JNDI Tree Structure on the left hand side, look for the following entries:

```
eis> DATAMARTDS
eis> REQUESTCENTERDS
BEEEAuthorizationsQueue
BEEEinboundQueue
BEEERequisitionsQueue
ISEEinboundQueue
ISEEOutboundQueue
NSConnectionFactory
```

Step 5 If you have a clustered WebLogic environment, then the JNDI Tree for your WebLogic Cluster should contain only 2 of the entries:

```
eis> DATAMARTDS
eis> REQUESTCENTERDS
```

And the JNDI Tree for the “Service Link WebLogic Server” should contain the following entries:

```
eis> REQUESTCENTERDS
BEEEAuthorizationsQueue
BEEEinboundQueue
BEEERequisitionsQueue
ISEEinboundQueue
ISEEOutboundQueue
NSConnectionFactory
```

Application Server Information Worksheet

Complete the following “Application Server Information Worksheet” by entering your configuration values in the **Value** column. The information in this worksheet will be needed when you run the Service Catalog Installation Wizard.

Table 2-9 Application Server Information Worksheet for WebLogic

Field	Description	Value
Request Center Configuration		
Request Center hostname	The Hostname or IP address of the computer where the WebLogic Server is running. For example, servername.domain.com. The default value is the full qualified domain name (FQDN) of the machine you are currently on.	
Request Center HTTP port	The Listen Port of the WebLogic Server. Valid port numbers are from 1 to 65535. The default value is 7001.	
Request Center JNDI port	The JNDI Port of the WebLogic Server. Valid port numbers are from 1 to 65535. The default value is 7001.	
Request Center protocol	The web protocol for the WebLogic Application Server. Choose http or https from the drop-down menu. The default is http.	
Datasource JNDI name	The datasource JNDI name for the RequestCenter database. This setting must have the prefix “eis/”. The default name is “eis/REQUESTCENTERDS”.	
DataMart JNDI name	The datasource JNDI name for the Datamart database. This setting must have the prefix “eis/”. The default name “eis/DATAMARTDS”.	
Application Server Configuration Advanced Options		
Enable clustering	Check the check box to enable a Clustered Application Server environment with multiple nodes. This is unchecked by default.	
Multicast address	If you checked “Enable clustering” above, enter the multicast address.	
Custom content?	Check the check box to use Custom content. You must enter the path to the Custom content archive below.	
Custom content archive	If you checked “Custom content?” above, enter the path to the Custom content archive including the name of the archive, or click Browse to locate and choose the custom content archive. The archive directory structure must match the deployment directory structure. The archive must be in the Zip format.	
Service Link Configuration (Note: These settings will only be prompted if you choose the “Custom” installation option.)		
Service Link hostname	The Hostname or IP address of the computer where the “Service Link WebLogic Server” is running. For a standalone environment, this value is the same as the Request Center hostname for the Application Server.	
Service Link HTTP port	The Listen Port of the “Service Link WebLogic Server”. If you have a clustered environment, then Service Link must be deployed on a separate WebLogic server outside of the cluster. Enter the port number for this separate WebLogic server. The default value is 7001.	
Service Link JNDI port	The JNDI Port of the “Service Link WebLogic Server”. If you have a clustered environment, then Service Link must be deployed on a separate WebLogic server outside of the cluster. Enter the port number for this separate WebLogic server. The default value is 7001.	

Table 2-9 Application Server Information Worksheet for WebLogic (continued)

Field	Description	Value
Service Link protocol	The web protocol for the Service Link WebLogic Server. Choose http or https from the drop-down menu. The default is http.	
Datasource JNDI name	The datasource JNDI name for the RequestCenter database. This setting must have the prefix “eis/”. The default name is “eis/REQUESTCENTERDS”.	
Messaging Configuration (Note: These settings will only be prompted if you choose the “Custom” installation option.)		
Queue hostname	The Hostname or IP address of the computer where the JMS service is running. The default value is the full qualified domain name (FQDN) of the machine you are currently on.	
Queue port	Port Number used by your JMS service. Valid port numbers are from 1 to 65535. The default value is 7001.	
Queue username	The username of the JMS Queue User. This field is mandatory.	
Queue password	The password for the JMS Queue User. This field is mandatory.	
Queue Connection factory	The name of the JMS Queue Connection Factory. The default name is NSConnectionFactory	
Messaging Queues Configuration		
Authorizations queue	The name of the Authorizations Queue. The default is BEEEAauthorizationsQueue.	
Requisitions queue	The name of the Requisitions Queue. The default is BEEERequisitionsQueue.	
Request Center inbound queue	The name of the Request Center Inbound Queue. The default is BEEEinboundQueue	
Service Link inbound queue	The name of the Service Link Inbound Queue. The default is ISEEinboundQueue.	
Service Link outbound queue	The name of the Service Link Outbound Queue. The default is ISEEOutboundQueue.	
Service Catalog Administration Configuration		
SMTP hostname	The Hostname or IP address of the SMTP server.	
SMTP port	The SMTP Port Number used by the SMTP server. Valid port numbers are from 1 to 65535. The default value is 25.	
System email address	The sender email address to be used for system generated notifications.	
Service Catalog Site Administrator: Password	Password of the Cisco Prime Service Catalog site administrator, required only for a new installation.	
Service Catalog Site Administrator Confirm password	Re-enter your site administrator’s password to confirm.	

What's Next?

Your WebLogic environment is ready. You can proceed to the [“Running the Service Catalog Installer” section on page 2-52](#).

Preinstallation Configuration for WebSphere

This section contains the instructions for configuring the IBM WebSphere Application Server, prior to installing Cisco Prime Service Catalog.

This release of Cisco Prime Service Catalog supports WebSphere Application Server on the following operating systems and IBM Java.

Table 2-10 Supported Operating System and Java

IBM WebSphere Application Server	Operating System	Java
Version 7.0.0 FixPack 27 (or higher FixPack)	Windows Server 2008 R2 (64-bit) with SP1	IBM Java SDK 1.6.0 (SR13 or higher)
Version 7.0.0 FixPack 27 (or higher FixPack)	IBM AIX 7.1	IBM Java SDK 1.6.0 (SR13 or higher)
Version 7.0.0 FixPack 27 (or higher FixPack)	Red Hat Enterprise Linux Server 5.6	IBM Java SDK 1.6.0 (SR13 or higher)

It is assumed that you have already installed WebSphere Application Server 7.0.0.x software on one of the supported operating systems. You will follow instructions in this section to create and configure a WebSphere Server, exclusively for the Cisco Prime Service Catalog application.

Downloading Service Catalog Software Image

In this section, you will download the electronic software distribution for Cisco Prime Service Catalog.

- Step 1** Access the Cisco product download web site and authenticate with the user name and password provided to you.
- Step 2** Search by product name, or navigate within the product selector to locate the product you have purchased. (Navigation: **Downloads Home > Products > Cloud and Systems Management > Service Catalog > Cisco Cloud Portal**).
- Step 3** Choose **Product Install** and click the link for the appropriate operating system.
- Step 4** You are presented with a list of folders for the different releases available. Locate Release 9.4.1 R2 and click it.
- Step 5** Download file **CPSC_9.4.1R2_win.zip** for the Windows operating system, or file **CPSC_9.4.1R2_unix.tar.gz** for the UNIX/Linux operating system.
- Step 6** Extract the software image to a directory on your application server machine. If you have Clustered WebSphere environment, then extract the Cisco Prime Service Catalog software on the machine where the WebSphere Deployment Manager server is running. For example, extract the software to C:\Cisco_Download (for Windows) or /opt/Cisco_Download (for UNIX/Linux). For the rest of this section, this directory is referred to as the *<ServiceCatalog_Software_Dir>*.



Note

The CPSC_9.4.1R2_unix.tar.gz file must be untarred using a GNU-compatible tar utility. Older tar utilities may have problems unzipping tar files that contain filenames longer than 100 characters.

Installing Custom Java Library

In this section, you will copy several custom java library files from `<ServiceCatalog_Software_Dir>` to the `<WAS_INSTALL_ROOT>` directory, where `<ServiceCatalog_Software_Dir>` is where you extracted the electronic software distribution for Cisco Prime Service Catalog (for example, `C:\Cisco_Download` or `/opt/Cisco_Download`), and `<WAS_INSTALL_ROOT>` is the installation directory of your WebSphere application server (for example, `C:\IBM\WebSphere\AppServer`, or `/opt/IBM/WebSphere/AppServer`).

-
- Step 1** Within `<WAS_INSTALL_ROOT>`, create a directory called "cisco_lib". And within "cisco_lib", create two sub-directories called "java_ext" and "was_ext".
- Step 2** Copy the following files from the "`<ServiceCatalog_Software_Dir>\preinstall\websphere\lib_ext`" directory to the "`<WAS_INSTALL_ROOT>\cisco_lib\was_ext`" directory:
- `geronimo-ccpp_1.0_spec-1.0-beta.jar`
 - `newscale_drivers.jar`
 - `newscale_ws_jdbc_provider.jar`
 - `pluto-container-api-2.0.2.jar`
 - `pluto-container-driver-api-2.0.2.jar`
 - `pluto-taglib-2.0.2.jar`
- Step 3** Copy the following files from the "`<ServiceCatalog_Software_Dir>\preinstall\websphere\java_jre_lib_ext`" directory to the "`<WAS_INSTALL_ROOT>\cisco_lib\java_ext`" directory:
- `portlet-api_2.0_spec-1.0.jar`
 - `wSDL4j-1.6.1.jar`



Note

If you have WebSphere Cluster environment, then you have to perform Steps 1–3 on every node in the Cluster, including the machine that hosts the WebSphere Deployment Manager server.

Creating a WebSphere Server

In this section you will create a WebSphere Server, to be used exclusively for Cisco Prime Service Catalog.

-
- Step 1** Log on to the WebSphere Administration Console.
- Step 2** Choose **Servers > Server Types**, and click **WebSphere application servers**.
- Step 3** In the right pane, click **New**. The "Create a new application server" panel appears.
- Step 4** Choose the node name from the drop-down list, enter a server name (for example, enter **server1**), then click **Next**.
- Step 5** Choose the "default" template, then click **Next**.
- Step 6** Choose the **Generate Unique Ports** option, then click **Next**.
- Step 7** Click **Finish**.

Step 8 Click **Save directly to the master configuration**.

Setting the Arguments for Java Virtual Machine

-
- Step 1** Click the newly created WebSphere Server (for example, click on "server1"), and open the Configuration tab.
- Step 2** Under the Server Infrastructure section in the right pane, expand Java and Process Management, and click **Process Definition**.
- Step 3** Under the Additional Properties section in the right pane, click **Java Virtual Machine**.
- Step 4** Modify only the following settings on the screen:
- Initial heap size = 1024
 - Maximum heap size = 1024
 - Deselect the "Debug Mode" option (if it is selected)
 - Generic JVM arguments = -Djava.net.preferIPv4Stack=true -Dclient.encoding.override=UTF-8
- Step 5** Click **OK**.
- Step 6** Back on the Process Definition page, click **Java Virtual Machine** again.
- Step 7** Under the Additional Properties section in the right pane, click **Custom properties**.
- Step 8** Click the **New** button.
- Step 9** Enter values for the following properties, then click **OK**:
- Name = ws.ext.dirs
 - Value = <WAS_INSTALL_ROOT>/cisco_lib/was_ext
(For example, Value = C:/IBM/WebSphere/AppServer/cisco_lib/was_ext)
- Step 10** Click the **New** button again to enter another Custom property.
- Step 11** Enter the values for the following properties, then click **OK**:
- Name = java.ext.dirs
 - Value = <WAS_INSTALL_ROOT>/java/jre/lib/ext;<WAS_INSTALL_ROOT>/cisco_lib/java_ext
(For example, Value = C:/IBM/WebSphere/AppServer/cisco_lib/was_ext)
- Step 12** Click **Save directly to the master configuration**.
-

Configuring the DISPLAY Property (for UNIX or Linux Only)

Perform the following steps to enable the display of KPI charts on the Service Catalog UI. As stated in the prerequisites section, if your Application Server machine is running a UNIX or Linux operating system, you must have either X-Window Server or Xvfb (virtual framebuffer X server) installed and running on your machine, so that WebSphere can communicate with X-Windows Server or Xvfb to display the KPI charts.

To configure the DISPLAY property:

-
- Step 1** Click the newly created WebSphere Server (that is, **server1**), and open the **Configuration** tab.
- Step 2** Under the Server Infrastructure section in the right pane, choose **Java and Process Management**, and click **Process Definition**.
- Step 3** Under the Additional Properties section in the right pane, click **Environment Entries**.
- Step 4** Click **New**.
- Step 5** Enter the following values:
- **Name = DISPLAY**
 - **Value = localhost:0.0**
- Step 6** Click **OK**.
- Step 7** Click **Save directly to the master configuration**.
-

Getting Port Numbers

-
- Step 1** Click the newly created WebSphere Server (that is, **server1**), and open the **Configuration** tab.
- Step 2** Under the Communication section in the right pane, choose **Ports**. A table that shows the Port Name and Number appears.
- Step 3** Write down the port number for the following Port Names. You will need this information when completing the worksheet at the end of this section.
- **BOOTSTRAP_ADDRESS =?**
 - **WC_defaulthost =?**

If you need to modify these port numbers:

- To the right of the Ports table, click **Details**.
 - Click the link for either **BOOTSTRAP_ADDRESS** or **WC_defaulthost** to open its General Properties panel.
 - Modify the value in the **Port** field.
 - Click **OK**.
 - Click **Save** directly to the master configuration.
-

Configurations for WebSphere Cluster

The Service Catalog product is comprised of two enterprise applications named “Request Center” and “Service Link.” However, the Service Catalog installer does not automatically deploy the Request Center and Service Link applications on your WebSphere Server for you. The installer will generate two WAR files (RequestCenter.war for the Request Center application, and ISEE.war for the Service Link application) which are customized for your WebSphere environment. After you execute the Service Catalog installer, you will need to follow the instructions in a later section of this guide to manually deploy RequestCenter.war and ISEE.war on your WebSphere Server.

The RequestCenter.war file and ISEE.war file can be deployed together in the same WebSphere Server even though they are two separate enterprise applications. However, if you are setting up a WebSphere Cluster environment with multiple nodes (where each node is a separate computer), then you need to perform the additional configurations as follows:

-
- Step 1** Perform the tasks described in the [“Installing Custom Java Library” section on page 2-35](#) on each node (that is, each computer) in the Cluster.
- Step 2** Follow the instructions in the [Creating a WebSphere Server, page 2-35](#) to create the WebSphere Server for each node and to set the JVM arguments for each server, before you add these servers to the Cluster.
- Step 3** Each WebSphere Server in your Cluster must be configured to use the same **BOOTSTRAP_ADDRESS** port number, and **WC_defaulthost** port number. For example, your Cluster contains two nodes. If the WebSphere Server on Node 1 is using **BOOTSTRAP_ADDRESS=2810** and **WC_defaulthost=9080**, then the WebSphere Server on Node 2 must also be configured to use **BOOTSTRAP_ADDRESS=2810** and **WC_defaulthost=9080**. If necessary, follow the instructions in the [“Getting Port Numbers” section on page 2-37](#) to set the **BOOTSTRAP_ADDRESS** and **WC_defaulthost** port numbers for all WebSphere Servers in the Cluster to be the same.
- Step 4** RequestCenter.war file is deployed on the WebSphere Cluster. But, the ISEE.war file cannot be deployed in the same Cluster; it must be deployed on a stand-alone WebSphere Server that is not a member of any Cluster. Therefore, if you have a clustered WebSphere environment, then you must create an additional stand-alone WebSphere Server (that is, not a member of the Cluster), to be used for ISEE.war. For the rest of the chapter, this stand-alone WebSphere Server is referred to as the “Service Link WebSphere Server”. For this stand-alone “Service Link WebSphere Server”, the JVM arguments can be set as follows:
- **Initial heap size = 1024**
 - **Maximum heap size = 1024**
 - Deselect the “**Debug Mode**” option (if it is selected)
 - **Generic JVM arguments = -Djava.net.preferIPv4Stack=true**
- Step 5** If the stand-alone “Service Link WebSphere Server” resides on another machine, then make sure that you also install the custom Java library as described in the [“Installing Custom Java Library” section on page 2-35](#) on that machine. The **BOOTSTRAP_ADDRESS** and **WC_defaulthost** port numbers for the “Service Link WebSphere Server” do not have to match the port numbers of the WebSphere Servers in the Cluster.
-

Configuring Virtual Host

-
- Step 1** Log on to the WebSphere Administration Console.
- Step 2** Choose **Environment > Virtual hosts**.
- Step 3** In the right pane, click **New**. The “Virtual Hosts > New” panel appears.
- Step 4** In the Name field, enter **ns_host**.
- Step 5** Click **OK**.
- Step 6** Click **Save** directly to the master configuration.
- Step 7** Click the newly created **ns_host** to open its properties panel.
- Step 8** Under Additional Properties, click the **Host Aliases** link.

- Step 9** Click **New**.
- Step 10** Enter the following values on the screen:
- **Host Name** = *
 - **Port** = <Enter the port number for **WC_defaulthost** used by your WebSphere Server. For example, enter 9080.>
- Step 11** Click **OK**.
- Step 12** Click **New** again to add another entry.
- Step 13** Enter the following values on the screen:
- **Host Name** = *
 - **Port** = <Enter the port number used by your Web Server. For example, enter 80. A Web Server (such as IBM HTTP Server or IIS) should already be configured with the necessary Plugin for WebSphere.>
- Step 14** Click **OK**.
- Step 15** Click **Save** directly to the master configuration.

**Note**

If you have a WebSphere Cluster environment, the virtual host called “ns_host” that you created is used only for the WebSphere Cluster. You need to create another virtual host called “sl_host” that will be used for the stand-alone “Service Link WebSphere Server”. Follow the same instructions as above to create a virtual host named **sl_host**, but for Step 10 (entering port number), enter the WC_defaulthost port number used by the “Service Link WebSphere Server”.

Configuring JMS Server

In this section, you will configure a JMS Server and the JMS Queues that will be used by Service Catalog.

**Note**

If RequestCenter.war and ISEE.war are deployed together on the same nonclustered WebSphere Server, then the JMS configurations described in this section are performed for that WebSphere Server. However, if you have a WebSphere Cluster environment, then the JMS configurations are performed for the “Service Link WebSphere Server”.

Creating Bus

- Step 1** Log on to the WebSphere Administration Console.
- Step 2** Choose **Service integration > Buses**.
- Step 3** On the right pane, click **New**. The “Create a new bus panel” appears.
- Step 4** Enter the following values, then click **Next**:
- **Name** = nsbus
 - Deselect the **Bus security** option (if it is selected)

- Step 5** Click **Finish**.
- Step 6** Click **Save** directly to the master configuration.
- Step 7** Click the newly created **nsbus** to open its Configuration panel.
- Step 8** Under the Topology section, click the **Bus members** link.
- Step 9** Click **Add**.
- Step 10** Choose the **Server** option, and in the drop-down list next to it, choose the WebSphere Server where you plan to deploy ISEE.war. (For example, if you have a WebSphere Cluster environment, choose the Service Link WebSphere Server in the drop-down list.)
- Step 11** Click **Next**.
- Step 12** Choose the **File store** option, then click **Next**.
- Step 13** On the “Configure file store” panel, do not make any changes. Click **Next**.
- Step 14** On the “Tune performance parameters” panel, do not make any changes. Click **Next**.
- Step 15** On the Summary panel, click **Finish**.
- Step 16** Click **Save** directly to the master configuration.
- Step 17** Click **nsbus** again to reopen its Configuration panel.
- Step 18** Under the Destination resources section, click the **Destinations** link.
- Step 19** Click **New**.
- Step 20** Choose the **Queue** option, and click **Next**.
- Step 21** In the Identifier field, enter **ISEEInboundQueue**, then click **Next**.
- Step 22** On the next panel, choose the bus member that you created in the previous steps. Click **Next**.
- Step 23** Click **Finish**.
- Step 24** (Do not click **Save** yet.) Repeat Steps 19–23 four more times to create four more queues with the following names:
- ISEEOutboundQueue
 - BEEERequisitionsQueue
 - BEEEAuthorizationsQueue
 - BEEEInboundQueue
- Step 25** Click **Save** directly to the master configuration after you finish the fifth queue.
-

Creating Queue Connection Factory

- Step 1** On the WebSphere Administration Console, choose **Resources > JMS**.
- Step 2** Click **Queue connection factories**.
- Step 3** From the Scope drop-down list, choose your WebSphere Server. (For example, choose the value “Node=<node_name>, Server=server1” for Scope.)

**Note**

If you have a WebSphere Cluster environment, then choose the Service Link WebSphere Server from the Scope drop-down list instead. The Queue Connection Factory you are about to create only needs to be visible to the WebSphere Server where the ISEE.war is deployed.

Step 4 Click **New**.

Step 5 Choose the **Default messaging provider** option, then click **OK**. The “New Queue Connection Factory” panel appears.

Step 6 Enter the following values on the screen:

- **Name = NSConnectionFactory**
- **JNDI Name = NSConnectionFactory**
- **Bus name = nsbus**

Step 7 Click **Apply**.

Step 8 Under the Additional Properties section to the right, click the **Connection pool properties** link.

Step 9 Enter the following values on the screen:

- **Connection timeout = 360**
- **Maximum connections = 25**

**Note**

The “Maximum connections” are used only during peak traffic. If you have a clustered WebSphere environment, the setting for “Maximum connections” may need to be increased.

Step 10 Click **Apply**.

Step 11 Under the Additional Properties section, click the **Advanced connection pool properties** link.

Step 12 Enter the following value on the screen:

- **Surge threshold = -1**

Step 13 Click **Save** directly to the master configuration.

Creating Queues

Step 1 On the WebSphere Administration Console, choose **Resources > JMS**.

Step 2 Click **Queues**.

Step 3 From the Scope drop-down list, choose your WebSphere Server. (For example, choose the value “Node=<node_name>, Server=server1” for Scope.)

**Note**

If you have a WebSphere Cluster environment, then choose the Service Link WebSphere Server from the Scope drop-down list instead. The Queues you are about to create only need to be visible to the WebSphere Server where ISEE.war is deployed.

Step 4 Click **New**.

Step 5 Choose the **Default messaging provider** option, then click **OK**. The New Queue panel appears.

- Step 6** Modify only the following settings on the screen:
- **Name = ISEEinboundQueue**
 - **JNDI Name = ISEEinboundQueue**
 - **Bus name = nsbus**
 - **Queue name = ISEEinboundQueue**
 - **Delivery mode = Persistent**
- Step 7** Click **OK**.
- Step 8** (Do not click **Save** yet.) Repeat Steps 4–7 four more times to create four more queues with the following names:
- ISEEOutboundQueue
 - BEEERequisitionsQueue
 - BEEERequisitionsQueue
 - BEEERequisitionsQueue
 - BEEERequisitionsQueue
- Step 9** Click **Save** directly to the master configuration after you finish the fifth queue.
-

Configuring J2C Authentication Data

In the “[Configuring Databases](#)” section on page 2-9, you created two database users, one as the schema owner of the RequestCenter database (that is, RCUser), and the other one as the schema owner of the Datamart database (that is, DMUser). In this section, you will add these database users to the J2C Authentication Data.

-
- Step 1** On the WebSphere Administration Console, choose **Security > Global security**.
- Step 2** Under the Authentication section in the right pane, click **Java Authentication and Authorization Service**.
- Step 3** Click **J2C authentication data**.
- Step 4** Click **New**.
- Step 5** Enter the following values on the screen (replace “RCUser” with the actual ID that you created as the schema owner for the RequestCenter database):
- **Alias = RCUser**
 - **User ID = RCUser**
 - **Password = <Enter the password for the database user RCUser.>**
- Step 6** Click **OK**.
- Step 7** Click **New** again to create another entry.
- Step 8** Enter the following values on the screen (replace “DMUser” with the actual ID that you created as the schema owner for the Datamart database):
- **Alias = DMUser**
 - **User ID = DMUser**
 - **Password = <Enter the password for the database user DMUser.>**

- Step 9** Click **OK**.
- Step 10** Click **Save** directly to the master configuration.
-

Configuring JDBC Data Sources

In this section, you will configure two JDBC Data Sources—one for the RequestCenter database, and one for the Datamart database.

Use the worksheet that you filled out at the end of the “Configuring Databases” section on page 2-9 to retrieve the necessary database information.

Creating JDBC Provider

- Step 1** On the WebSphere Administration Console, choose **Resources > JDBC**, and click **JDBC Providers**.
- Step 2** From the Scope drop-down list, choose your WebSphere Server. (For example, choose the value “Node=<node_name>, Server=server1” for Scope.)



Note


If you have a WebSphere Cluster environment, then choose the WebSphere Cluster name from the Scope drop-down list instead. The JDBC Provider you are about to create need to be visible to all WebSphere Servers that belong in the Cluster.

- Step 3** Click **New**. The “Create new JDBC provider” panel appears.
- Step 4** Enter the following values on the screen:
- **Database Type** = **User-defined**
 - **Implementation class name** = *<enter one of the following values:>*
 - (For Oracle:) **com.newscale.jdbcx.oracle.OracleDataSource**
 - (For SQL Server:) **com.newscale.jdbcx.sqlserver.SQLServerDataSource**
 - **Name** = **Cisco JDBC Driver for <database_type>**
 - **Description** = **Cisco JDBC Driver for <database_type>**
- Step 5** Click **Next**. The “Enter database class path information” panel appears.
- Step 6** Replace the “Class path” with the following two lines:
- ```
${WAS_INSTALL_ROOT}/cisco_lib/was_ext/newscale_ws_jdbc_provider.jar
${WAS_INSTALL_ROOT}/cisco_lib/was_ext/newscale_drivers.jar
```
- Step 7** Click **Next**. The Summary panel appears.
- Step 8** Review the information on the Summary panel. If everything looks correct, then click **Finish**.
- Step 9** Click **Save directly to the master configuration**.

**Note**

If you have a WebSphere Cluster environment, then the JDBC Provider that you just created will not be visible to the stand-alone “Service Link WebSphere Server”, which does not belong to the Cluster. Therefore, you need to create the same JDBC Provider by repeating Steps 1–9, but this time, at Step 2, set the Scope to the **Service Link WebSphere Server**.

## Creating REQUESTCENTERDS Data Source

- Step 1** Click the newly created JDBC Provider to open its Configuration panel.
- Step 2** Under the Additional Properties section, click the **Data sources** link.
- Step 3** Click **New**. The “Enter basic data source information” panel appears.
- Step 4** Enter the following values on the screen:
  - **Data source name = REQUESTCENTERDS**
  - **JNDI name = eis/REQUESTCENTERDS**
- Step 5** Click **Next**.
- Step 6** Enter the following value in the “Data store helper class name” field:  
**com.newscale.jdbc.websphere.NSDataStoreHelper**
- Step 7** Click **Next**.
- Step 8** In the drop-down list for the “Component-managed authentication alias” field, choose the “RCUser” alias that you created for J2C authentication data in the previous section (for example, choose the value “<host>CellManager01/RCUser”).
- Step 9** Click **Next**.
- Step 10** Review the information on the Summary panel. If everything looks correct, then click **Finish**.
- Step 11** Click **Save** directly to the master configuration.
- Step 12** Click the newly created data source named **REQUESTCENTERDS** to open its General Properties panel.
- Step 13** Under Additional Properties section, click the **Connection pool properties** link.
- Step 14** Enter the following values on the screen:
  - **Maximum connections = 80**
  - **Minimum connections = 20**
- Step 15** Click **OK**.
- Step 16** (Do not click **Save** yet.) Under the Additional Properties section, click the **Custom properties** link. A panel that shows about 50 properties appears (the properties may span over several panels).
- Step 17** Click the **Select All icon** ( , ) in order to choose all of the property entries on the current panel. Then click **Delete**. Repeat this step until all property entries are deleted completely.
- Step 18** Now, click **New** to add a new property entry.
- Step 19** Enter the following on the screen (see the “Database Information Worksheet”):
  - **Name = serverName**

- Value = *<Database Server>*
- Type = java.lang.String

**Step 20** Click **OK**.

**Step 21** Click **New** to add another entry.

**Step 22** Enter the following on the screen (see the Database Information Worksheet):

- Name = **portNumber**
- Value = *<Database Port>*
- Type = java.lang.String

**Step 23** Click **OK**.

**Step 24** If your database is Oracle: Repeat Steps 21–23 to add the following entries (see the Database Information Worksheet):

| Name | Value                     | Type             |
|------|---------------------------|------------------|
| SID  | <i>&lt;ORACLE_SID&gt;</i> | java.lang.String |

After you are done, the list of Custom properties for your Oracle Data Source should look similar to the following screenshot:

**Figure 2-8 Oracle Data Source – Custom Properties**

|                          |            |                         |  |       |
|--------------------------|------------|-------------------------|--|-------|
| New Delete               |            |                         |  |       |
| <input type="checkbox"/> | serverName | chef.oakgas.celosis.com |  | false |
| <input type="checkbox"/> | portNumber | 1521                    |  | false |
| <input type="checkbox"/> | SID        | stan                    |  | false |
| Total 3                  |            |                         |  |       |

**Step 25** If your database is SQL Server: Repeat Steps 21–23 to add the following entries (see the Database Information Worksheet):

| Name                           | Value                                                                 | Type             |
|--------------------------------|-----------------------------------------------------------------------|------------------|
| databaseName                   | <i>&lt;The name of your RequestCenter database on SQL Server.&gt;</i> | java.lang.String |
| selectMethod                   | direct                                                                | java.lang.String |
| alwaysReportTriggerResults     | true                                                                  | java.lang.String |
| insensitiveResultSetBufferSize | 16384                                                                 | java.lang.String |
| useServerSideUpdatableCursors  | false                                                                 | java.lang.String |
| maxPooledStatements            | 0                                                                     | java.lang.String |
| enable2Phase                   | false                                                                 | java.lang.String |

After you are done, the list of **Custom properties** for your SQL Server Data Source should look similar to the following screenshot:

**Figure 2-9 SQL Server Data Source – Custom Properties**

Preferences

New Delete

| Select                   | Name                           | Value                          | Description | Required |
|--------------------------|--------------------------------|--------------------------------|-------------|----------|
| <input type="checkbox"/> | serverName                     | winxdbssql1.oakdev.celosis.com |             | false    |
| <input type="checkbox"/> | portNumber                     | 1433                           |             | false    |
| <input type="checkbox"/> | databaseName                   | P6RCDB                         |             | false    |
| <input type="checkbox"/> | selectMethod                   | direct                         |             | false    |
| <input type="checkbox"/> | alwaysReportTriggerResults     | true                           |             | false    |
| <input type="checkbox"/> | insensitiveResultSetBufferSize | 16384                          |             | false    |
| <input type="checkbox"/> | useServerSideUpdatableCursors  | false                          |             | false    |
| <input type="checkbox"/> | maxPooledStatements            | 0                              |             | false    |
| <input type="checkbox"/> | enable2Phase                   | false                          |             | false    |

Total 9

**Step 26** Click **Save** directly to the master configuration.



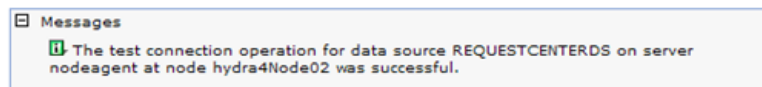
**Note**

If you have a WebSphere Cluster environment, then you should have created two JDBC Providers, one for Scope=<Cluster>, and another one for Scope=<Service Link WebSphere Server>. If you just completed the REQUESTCENTERDS data source for the JDBC Provider where Scope=<Cluster>, then you must repeat the same procedure to create the REQUESTCENTERDS data source for the JDBC Provider where Scope=<Service Link WebSphere Server>. This is because the Service Link application, that is running on the stand-alone <Service Link WebSphere Server>, also needs a JDBC connection to the RequestCenter database at runtime.



**Step 27** To test your REQUESTCENTERDS data source:

- Click the newly created data source named **REQUESTCENTERDS** to open its General Properties panel.
- Click **Test Connection**.
- The following message should appear at the top of the panel:

**Figure 2-10 REQUESTCENTERDS Connection Successful Message**



## Creating DATAMARTDS Data Source

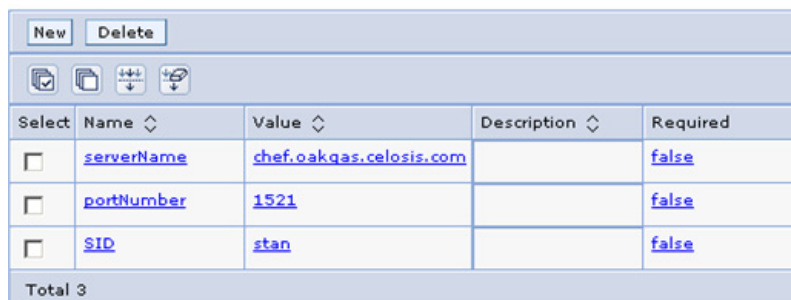
- Step 1** Click the newly created JDBC Provider to open its Configuration panel. You will create a second data source in the same JDBC Provider.
-  **Note** If you have a WebSphere Cluster environment, then choose the JDBC Providers for Scope=<Cluster>. The data source that you are about to create for the Datamart database is only needed for the WebSphere Cluster. It is not needed for the <Service Link WebSphere Server>.
- Step 2** Under the Additional Properties section, click the **Data sources** link.
- Step 3** Click **New**. The “Enter basic data source information” panel appears.
- Step 4** Enter the following values on the screen:
- **Data source name = DATAMARTDS**
  - **JNDI name = eis/DATAMARTDS**
- Step 5** Click **Next**.
- Step 6** Enter the following value in the “Data store helper class name” field:  
**com.newscale.jdbc.websphere.NSDataStoreHelper**
- Step 7** Click **Next**.
- Step 8** In the drop-down list for the “Component-managed authentication alias” field, choose the “DMUser” alias that you created for J2C authentication data in the previous section (for example, choose the value “<host>CellManager01/DMUser”).
- Step 9** Click **Next**.
- Step 10** Review the information on the Summary panel. If everything looks correct, then click **Finish**.
- Step 11** Click **Save** directly to the master configuration.
- Step 12** Click the newly created data source named **DATAMARTDS** to open its General Properties panel.
- Step 13** Under the Additional Properties section, click the **Connection pool properties** link.
- Step 14** Enter the following values on the screen:
- **Maximum connections = 20**
  - **Minimum connections = 5**
- Step 15** Click **OK**.
- Step 16** (Do not click **Save** yet.) Under the Additional Properties section, click the **Custom properties** link. A panel that shows about 50 properties appears (the properties may span over several panels).
- Step 17** Click the **Select All icon** (  ), in order to choose all of the property entries on the current panel. Then click **Delete**. Repeat this step until all property entries are deleted completely.
- Step 18** Now, click **New** to add a new property entry.
- Step 19** Enter the following on the screen (see the Database Information Worksheet):
- **Name = serverName**
  - **Value = <Database Server>**
  - **Type = java.lang.String**
- Step 20** Click **OK**.

- Step 21** Click **New** to add another entry.
- Step 22** Enter the following on the screen (see the Database Information Worksheet):
- **Name** = **portNumber**
  - **Value** = **<Database Port>**
  - **Type** = **java.lang.String**
- Step 23** Click **OK**.
- Step 24** If your database is Oracle: Repeat Steps 21–23 to add the following entries (see the Database Information Worksheet).

| Name | Value        | Type             |
|------|--------------|------------------|
| SID  | <ORACLE_SID> | java.lang.String |

After you are done, the list of Custom properties for your Oracle Data Source should look similar to the following screenshot:

**Figure 2-11 Oracle DATAMARTDS – Custom Properties**



| New                                 | Delete                   |                          |                          |                          |
|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Select                              | Name                     | Value                    | Description              | Required                 |
| <input type="checkbox"/>            | serverName               | chef.oakgas.celosis.com  |                          | false                    |
| <input type="checkbox"/>            | portNumber               | 1521                     |                          | false                    |
| <input type="checkbox"/>            | SID                      | stan                     |                          | false                    |
| Total 3                             |                          |                          |                          |                          |

- Step 25** If your database is SQL Server: Repeat Steps 21–23 to add the following entries (see the Database Information Worksheet):

| Name                           | Value                                               | Type             |
|--------------------------------|-----------------------------------------------------|------------------|
| databaseName                   | <The name of your Datamart database on SQL Server.> | java.lang.String |
| selectMethod                   | direct                                              | java.lang.String |
| alwaysReportTriggerResults     | true                                                | java.lang.String |
| insensitiveResultSetBufferSize | 16384                                               | java.lang.String |
| useServerSideUpdatableCursors  | false                                               | java.lang.String |
| maxPooledStatements            | 0                                                   | java.lang.String |
| enable2Phase                   | false                                               | java.lang.String |

After you are done, the list of Custom properties for your SQL Server Data Source should look similar to the following screenshot:

**Figure 2-12 SQL Server DATAMARTDS – Custom Properties**

Preferences

New Delete

| Select                   | Name                           | Value                          | Description | Required |
|--------------------------|--------------------------------|--------------------------------|-------------|----------|
| <input type="checkbox"/> | serverName                     | winxdbssql1.oakdev.celosis.com |             | false    |
| <input type="checkbox"/> | portNumber                     | 1433                           |             | false    |
| <input type="checkbox"/> | databaseName                   | P6RCDB                         |             | false    |
| <input type="checkbox"/> | selectMethod                   | direct                         |             | false    |
| <input type="checkbox"/> | alwaysReportTriggerResults     | true                           |             | false    |
| <input type="checkbox"/> | insensitiveResultSetBufferSize | 16384                          |             | false    |
| <input type="checkbox"/> | useServerSideUpdatableCursors  | false                          |             | false    |
| <input type="checkbox"/> | maxPooledStatements            | 0                              |             | false    |
| <input type="checkbox"/> | enable2Phase                   | false                          |             | false    |

Total 9

**Step 26** Click **Save** directly to the master configuration.

**Step 27** To test your DATAMARTDS data source:

- a. Click the newly created data source named **DATAMARTDS** to open its General Properties panel.
- b. Click **Test Connection**.
- c. A message that looks similar to the following should appear:

**Figure 2-13 DATAMARTDS Connection Successful Message**

## Starting WebSphere Server

You need to restart the WebSphere Server for it to pick up all of the configurations that you have done in the previous sections.



### Note

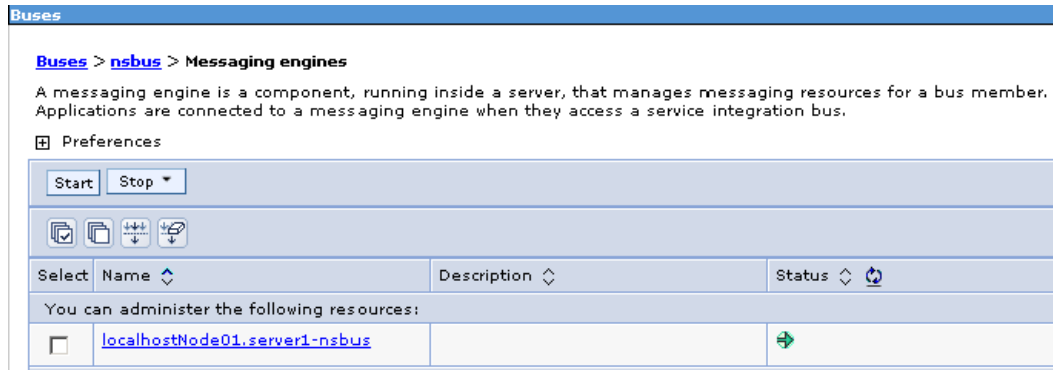
If you have a WebSphere Cluster environment, then you need to restart the Cluster as well as the “Service Link WebSphere Server.”

After the WebSphere Server is restarted, verify that the Bus is running:

- Step 1** Log on to the WebSphere Administration Console.
- Step 2** Choose **Service integration > Buses**.
- Step 3** Click **nsbus** to open its Configuration panel.
- Step 4** Under the Topology section, click the **Messaging engines** link.

- Step 5** Verify that the messaging engine has the status of “Started” (that is, a green arrow as shown in the screenshot below).

**Figure 2-14**      *Messaging Engine Status*



## Application Server Information Worksheet

Complete the following “Application Server Information Worksheet” by entering your configuration values in the **Value** column. The information in this worksheet will be needed when you run the Service Catalog Installation Wizard.

**Table 2-11**      *Application Server Information Worksheet for WebSphere*

| Field                               | Description                                                                                                                                                                                                                                     | Value |
|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| <b>Request Center Configuration</b> |                                                                                                                                                                                                                                                 |       |
| Request Center hostname             | The Hostname or IP address of the computer where the WebSphere Server is running. The default value is the full qualified domain name (FQDN) of the machine you are currently on. If you have WebSphere Cluster environment, enter “localhost”. |       |
| Request Center HTTP port            | The WC_defaulthost port number used by the WebSphere Server. Valid port numbers are from 1 to 65535. The default value is 9080.                                                                                                                 |       |
| Request Center JNDI port            | The BOOTSTRAP_ ADDRESS port number used by the WebSphere Server. Valid port numbers are from 1 to 65535. The default value is 2809.                                                                                                             |       |
| Request Center protocol             | The web protocol for the WebSphere Application Server. Choose <b>http</b> or <b>https</b> from the drop-down menu. The default is http.                                                                                                         |       |
| Datasource JNDI name                | The datasource JNDI name for the RequestCenter database. This setting must have the prefix “eis/”. The default name is “eis/REQUESTCENTERDS”.                                                                                                   |       |
| DataMart JNDI name                  | The datasource JNDI name for the Datamart database. This setting must have the prefix “eis/”. The default name “eis/DATAMARTDS”.                                                                                                                |       |
| <b>Advanced Options</b>             |                                                                                                                                                                                                                                                 |       |
| Enable clustering                   | Check the check box to enable a Clustered Application Server environment with multiple nodes. This is unchecked by default.                                                                                                                     |       |
| Multicast address                   | If you checked “Enable clustering” above, enter the multicast address.                                                                                                                                                                          |       |



**Table 2-11 Application Server Information Worksheet for WebSphere (continued)**

| Field                                                                                                                          | Description                                                                                                                                                                                                                                                                                                           | Value |
|--------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| Custom content?                                                                                                                | Check the check box to use Custom content. You must enter the path to the Custom content archive below.                                                                                                                                                                                                               |       |
| Custom content archive                                                                                                         | If you checked “Custom content?” above, enter the path to the Custom content archive including the name of the archive, or click <b>Browse</b> to locate and choose the custom content archive. The archive directory structure must match the deployment directory structure. The archive must be in the Zip format. |       |
| <b>Service Link Configuration (Note: These settings will only be prompted if you choose the “Custom” installation option.)</b> |                                                                                                                                                                                                                                                                                                                       |       |
| Service Link hostname                                                                                                          | The Hostname or IP address of the computer where the “Service Link WebSphere Server” is running. The default value is the full qualified domain name (FQDN) of the machine you are currently on.                                                                                                                      |       |
| Service Link HTTP port                                                                                                         | The WC_defaulthost port number used by the Service Link WebSphere Server. If you have a clustered environment, then Service Link must be deployed on a separate WebSphere server outside of the cluster. Enter the port number for this separate WebSphere server. The default value is 9080.                         |       |
| Service Link JNDI port                                                                                                         | The BOOTSTRAP_ADDRESS port number used by the Service Link WebSphere Server. If you have a clustered environment, then Service Link must be deployed on a separate WebSphere server outside of the cluster. Enter the port number for this separate WebSphere server. The default value is 2809.                      |       |
| Service Link protocol                                                                                                          | The web protocol for the Service Link WebSphere Application Server. Choose <b>http</b> or <b>https</b> from the drop-down menu. The default is http.                                                                                                                                                                  |       |
| Datasource JNDI name                                                                                                           | The datasource JNDI name for the RequestCenter database. This setting must have the prefix “eis/”. The default name is “eis/REQUESTCENTERDS”.                                                                                                                                                                         |       |
| <b>Messaging Configuration (Note: These settings will only be prompted if you choose the “Custom” installation option.)</b>    |                                                                                                                                                                                                                                                                                                                       |       |
| Queue hostname                                                                                                                 | The Hostname or IP address of the computer where the JMS service is running. The default value is the full qualified domain name (FQDN) of the machine you are currently on.                                                                                                                                          |       |
| Queue port                                                                                                                     | Port Number used by your JMS service. Valid port numbers are from 1 to 65535. The default value is 2809.                                                                                                                                                                                                              |       |
| Queue username                                                                                                                 | The username of the JMS Queue User. For WebSphere, this value can be set to “guest”.                                                                                                                                                                                                                                  |       |
| Queue password                                                                                                                 | The password for the JMS Queue User. For WebSphere, this value can be set to “guest”.                                                                                                                                                                                                                                 |       |
| Queue Connection factory                                                                                                       | The name of the JMS Queue Connection Factory. The default name is NSConnectionFactory                                                                                                                                                                                                                                 |       |
| <b>Messaging Queues Configuration</b>                                                                                          |                                                                                                                                                                                                                                                                                                                       |       |
| Authorizations queue                                                                                                           | The name of the Authorizations Queue. The default is BEEEEAuthorizationsQueue.                                                                                                                                                                                                                                        |       |
| Requisitions queue                                                                                                             | The name of the Requisitions Queue. The default is BEEERequisitionsQueue.                                                                                                                                                                                                                                             |       |
| Request Center inbound queue                                                                                                   | The name of the Request Center Inbound Queue. The default is BEEEInboundQueue.                                                                                                                                                                                                                                        |       |
| Service Link inbound queue                                                                                                     | The name of the Service Link Inbound Queue. The default is ISEEinboundQueue.                                                                                                                                                                                                                                          |       |

**Table 2-11**      **Application Server Information Worksheet for WebSphere (continued)**

| Field                                                | Description                                                                                                    | Value |
|------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-------|
| Service Link outbound queue                          | The name of the Service Link Outbound Queue. The default is ISEEOutboundQueue.                                 |       |
| <b>Service Catalog Administration Configuration</b>  |                                                                                                                |       |
| SMTP hostname                                        | The hostname or IP address of the SMTP server.                                                                 |       |
| SMTP port                                            | The SMTP Port Number used by the SMTP server. Valid port numbers are from 1 to 65535. The default value is 25. |       |
| System email address                                 | The sender email address to be used for system generated notifications.                                        |       |
| Service Catalog Site Administrator: Password         | Password of the Cisco Prime Service Catalog Site Administrator, required only for a new installation.          |       |
| Service Catalog Site Administrator: Confirm password | Re-enter your Site Administrator's password to confirm.                                                        |       |

## What's Next?

Your WebSphere environment is ready. You can proceed to the [Running the Service Catalog Installer](#) section below.

## Running the Service Catalog Installer

This section provides instructions for executing the Service Catalog installer.

Two modes of installation are provided—Typical and Custom. The Typical installation performs a streamlined installation using default settings. It requires a smaller footprint as the three foundational application components—Request Center application, Service Link application, and JMS service—are hosted on the same application server. Typical installation is commonly used when setting up sandbox environments.

The Custom installation allows you to configure a different deployment topology and to apply custom changes to the application. Use the Custom Installation mode if you have any of the following requirements:

- Have Request Center application, Service Link application, JMS service running on separate application servers
- Have a clustered Request Center topology (WebLogic or WebSphere only)
- Have separate tablespaces for definitional data, transactional data and indexes (Oracle only)
- Add custom content to the RequestCenter.war
- Recreate the RequestCenter.war or ISEE.war files without executing any database scripts
- For JBoss, the Custom mode allows the user to install "Request Center only", "Service Link only" or "both"

Two installation scenarios are provided that walk you through all steps of the installation wizard:

- “[Scenario 1: New Typical Installation](#)” section on page 2-54
- “[Scenario 2: New Custom Installation](#)” section on page 2-57

For information about performing an upgrade installation, see [Chapter 4, “Upgrade Guide”](#).

## Before You Begin

- Review the “[Prerequisites and Installation Overview](#)” section on page 2-2 to ensure that you have adequately addressed the minimum hardware and software requirements for running the system.
- Ensure that you have performed the database tasks described in the “[Configuring Databases](#)” section on page 2-9, and completed the Database Information Worksheet.
- Ensure that you have performed the preinstallation tasks for your type of application server and completed the Application Server Information Worksheet.
- The Cisco Prime Service Catalog installer requires Java 1.6. Make sure that the JAVA\_HOME environment variable on your computer is set to point to a Java 1.6 directory. On Windows, add %JAVA\_HOME%\bin to the PATH environment variable. On Unix/Linux, add \$JAVA\_HOME/bin to the PATH environment variable.
- The Cisco Prime Service Catalog installer is a GUI program. On Unix or Linux operating system, you will need a graphical display, such as X-window. The installer does not support console mode or CLI mode.

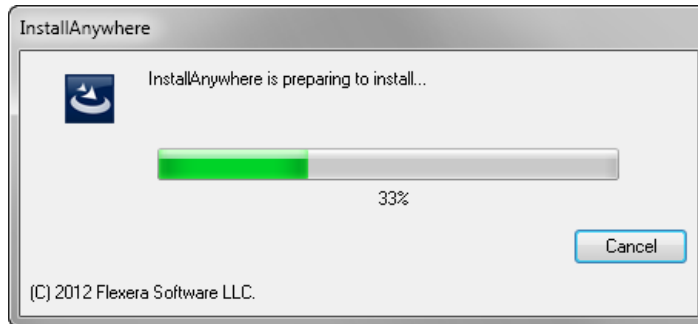
## Executing Setup

Service Catalog is installed by executing a setup program that launches an installation wizard. If you are on a Windows operating system, you need to have administrative rights to the machine. If you are on a Unix/Linux machine, it is advisable that you login as "root" user to execute the installer.

To execute the setup program:

- 
- Step 1** Extract the electronic software distribution file that you downloaded from the Cisco web site to your computer, if you have not already done so.
- Step 2** On a Windows operating system, double-click **setup.cmd** to launch the GUI installation wizard. For a UNIX or Linux operating system, run **./setup.sh** from a graphical interface, such as X-window.

A progress bar appears, as shown in [Figure 2-15](#) below.

**Figure 2-15 Setup Progress Bar**

When complete, the introduction panel appears.

## How to Use the Installation Wizard

The installation wizard guides you through the installation of Cisco Prime Service Catalog by presenting panels of fields to be configured. As each panel is completed, click **Next** to advance to the next panel, or **Previous** to return to a previous panel. At the end of the wizard, click **Install** to begin the installation. At any time, you may click **Cancel** to exit the installation wizard without installing Service Catalog.

Some panels may have the Restore Default button. If this button is clicked, the input values on the current panel will be restored back to the factory-default values. If the Custom installation mode is selected, some panels might have the Advanced Options button. Click this button to see more advanced settings for the database or the application server.

The installation configuration options are case-sensitive, so ensure that you enter a value, such as a database name or a JMS queue name, with case sensitivity; otherwise, your installation may fail.

## Scenario 1: New Typical Installation

In this scenario, a new database schema is created for a new Service Catalog installation. A "Typical" installation type is chosen in the installation wizard when you want to perform a streamlined installation using default settings.

- 
- Step 1** Launch the installation wizard (see the ["Executing Setup" section on page 2-53](#)).
  - Step 2** On the Introduction panel, click **Next** to begin.
  - Step 3** In the **Choose Install Folder** panel, enter a destination folder for the installation and click **Next**.
    - For a Windows environment, `C:\CiscoPrimeServiceCatalog` is entered as the default destination folder.

- For Linux/Unix, the default destination folder is `"/opt/CiscoPrimeServiceCatalog"`. Enter a different destination folder, or click **Choose** to locate and select a folder (or create a new one). The destination folder cannot be blank.

**Note**

Do not enter the installation folder of your WebLogic or WebSphere root directory. We recommend that you create the destination folder outside of your application server directory. The path name for the destination folder must not contain any spaces.

Throughout this document, this destination folder is referred to as `<ServiceCatalog_Install_Dir>`.

For WebLogic or WebSphere, this directory is where the Service Catalog installer creates the generated WAR files for the Service Catalog application. For JBoss, this directory is also where the Service Catalog installer installs and configures the JBoss Application Server software.

**Step 4** On the Choose Install Set panel, select a product set, then click **Next**.

You can choose to install just the "Cisco Prime Service Catalog" product set or the "Cisco Prime Service Catalog with Demand Center" product set. .

**Step 5** On the Choose Installation Type panel, select **Typical** radio button and click **Next**.

**Step 6** On the Application Server Selection panel, select the application server and click **Next**. The subsequent panels may look different depending on which application server you select at this point. Refer to the Application Server Information Worksheet that you filled out earlier.

**Step 7** On the Database Selection panel, select a database platform (Microsoft SQL Server or Oracle) and click **Next**. The subsequent panels may look different depending on which database platform you select at this point. Refer to the [Database Information Table](#) that you filled out earlier to determine your database platform.

**Step 8** In the Request Center Database Creation panel:

- If you have not created the database in advance, select **Yes**. Refer to the [Database Information Table](#) below to enter the database information and click **Create Database** button.
- If you have already created your database, then select **No**. Refer to the [Database Information Table](#) and ensure that **Execute database scripts?** button is checked.

**Note**

The "create database" feature creates a very basic RequestCenter database that meets the minimum requirements for the Service Catalog application to proceed. This feature is recommended for a Demo or Test system. For a Production system, contact your DBA in advance, to create the RequestCenter database which meets all of the product requirements as described in the Configuring Databases section, as well as any performance, reliability, and security requirements that adhere to your corporate policy.

- If you are performing an upgrade installation, then select **No**. Refer to the [Database Information Table](#) and ensure that **Execute database scripts?** button is checked. Refer to Chapter 4: Upgrade Guide for more detailed information.

**Step 9** Click **Next** to continue. The installer connects to the database to validate the required settings for the database. If the installer created the database for you, then it would meet all of the required settings, and the validation test would pass. If you provided the information for an existing database, then the installer may report a validation error if any database setting is missing. (Refer to the [Configuring Databases, page 2-9](#) section in this chapter for the database requirements). If a database validation error occurs, you can do the following:

- Close the error dialog and click **Cancel** to exit the installation wizard, or
- Fix the missing database setting on a separate database connection session. Then come back to this screen, close the error dialog, and click **Next** again. At this point, the installer will repeat the validation test, and if the test passes, it will let you move to the next panel.

**Step 10** If you have selected JBoss as the application server, the installation procedure is as follows:

- a. Choose Java Virtual Machine panel is displayed. This panel displays all the available java executable programs on the computer. Select a Java version 1.6.0\_x from the list or click the **Search Another Location** button to navigate to the correct location of Java 1.6.0\_x on your computer and click **Next**. The Request Center Configuration panel is displayed.

**Note**

You must specify the location of Java for JBoss because the installer will install the JBoss Application Server software on your computer, and it will set the JAVA\_HOME variable in the JBoss configuration to use this particular Java.

- b. In the Request Center Configuration panel, enter the information for the JBoss server where the Request Center application (i.e. RequestCenter.war) will be deployed. See [Request Center Configuration Table for JBoss](#).
- c. Click **Next** to display the Service Link Configuration panel. Enter the information for the JBoss server where Service Link application (i.e. ISEE.war) will be deployed. Refer to the [Application Server Information Worksheet](#) that you filled out earlier. See [Service Link Configuration Table for JBoss](#). Click **Change Ports** button if you want to change any of the default port numbers assigned to the JBoss server for Request Center and click **Close**.

**Note**

For WebSphere or WebLogic, you will not see this panel. This is because for a Typical installation mode for WebSphere or WebLogic, the Request Center application (i.e. RequestCenter.war) and Service Link application (i.e. ISEE.war) will be deployed together in the same WebSphere or WebLogic server. Thus, there is no need for the installer to prompt for the information of the Service Link server. However, for a Typical installation mode for JBoss, the installer will always create two separate JBoss servers, one for Request Center application and one for Service Link application, even though both JBoss servers are running on the same machine.

- d. Click **Next** to display the Messaging Configuration panel. Enter the information for the JMS Queue Connection Factory. Refer to the [Application Server Information Worksheet](#) that you filled out earlier. For more information, see [Messaging Configuration Table](#).
- e. Click **Next** to display the Service Catalog Administration panel. Enter details as provided in [Service Catalog Administration Configuration Table](#).

**Step 11** If you have selected Weblogic or Websphere as the application server, the installation procedure is as follows:

- a. In the Request Center Configuration panel, enter the information for the WebSphere or WebLogic server where Request Center application (i.e. RequestCenter.war) will be deployed. Refer to the [Application Server Information Worksheet](#) that you have filled out earlier. For more information, see [Request Center Configuration for WebLogic and WebSphere](#).
- b. Click **Next** to display the Messaging Configuration panel. Enter the information for the JMS Queue Connection Factory. Refer to the [Application Server Information Worksheet](#) that you filled out earlier. For more information, see [Messaging Configuration Table](#).

- c. Click **Next** to display the Messaging Queues Configuration panel. Enter the queue names as how you prepared them for your WebSphere or WebLogic server. Refer to the [Application Server Information Worksheet](#) that you filled out earlier.



**Note** For JBoss, you will not see this panel. This is because for JBoss, all the queue names are preset when the installer installs the JBoss AS software on your computer. You do not have the option to overwrite these queue names.

- d. Click **Next** to display the Service Catalog Administration panel. Enter details as provided in [Service Catalog Administration Configuration Table](#).

**Step 12** Click **Next**.

**Step 13** Click **Install** in the Pre-Installation Summary panel to begin installation.

The installer will display the progress bar as shown in Figure 2-37. It may take up to 30 minutes for the installer to complete. Do not interrupt the installation wizard during this process.

**Step 14** If the installation process completes successfully, the **Install Complete** panel appears. Click **Done** to exit the installation wizard.

## What's Next

You have completed the execution of the Service Catalog installer. You can now proceed to the Postinstallation Configuration section for the appropriate application server below.

## Scenario 2: New Custom Installation

In this scenario, a "Custom" installation type is chosen in the installation wizard to customize aspects of the installation rather than accepting the defaults.

**Step 1** Launch the installation wizard (see the [“Executing Setup” section on page 2-53](#)).

**Step 2** On the first panel of the installation wizard, click **Next** to begin. The **Choose Install Folder** panel of the installation wizard appears.

**Step 3** Choose a destination folder for the installation and click **Next**.

- For a Windows environment, `C:\CiscoPrimeServiceCatalog` is entered as the default destination folder.
- For Linux/Unix, the default destination folder is `/opt/CiscoPrimeServiceCatalog`. Enter a different destination folder, or click **Choose** to select a folder (or create a new one). The destination folder cannot be blank.



**Note** Do not enter the installation folder of your application server. We recommend that you create the destination folder outside the application server directory. The path name for the destination folder must not contain any spaces.

Throughout this document, this destination folder is referred to as *<ServiceCatalog\_Install\_Dir>*. For WebLogic or WebSphere, this directory is where the Service Catalog installer creates the generated WAR files for the Service Catalog application. For JBoss, this directory is also where the Service Catalog installer installs and configures the JBoss Application Server software.

- Step 4** Choose the Install Set you want by clicking its radio button in the Choose Install Set panel of the installation wizard and click **Next**.

You can install Cisco Prime Service Catalog or Cisco Prime Service Catalog with the Demand Center module. The default install set is Cisco Prime Service Catalog.

- Step 5** Select **Custom** radio button in the Installation Type panel and click **Next**.

The Application Server Selection panel appears.

- Step 6** In the Application Server Selection panel, select the Application server and click **Next**.

- If you select JBoss, continue with Component Selection panel in Step 7
- If you select WebSphere or WebLogic, skip Step 7

- Step 7** Select a component in the Component Selection panel and click **Next**.

Unlike the Typical installation mode (where both Request Center and Service Link servers are always installed on the same machine for JBoss), the Custom installation mode for JBoss allows you to install both the Request Center server and the Service Link server on the same computer or on different computers.

- Step 8** Choose the database platform (Microsoft SQL Server or Oracle) you want, in the Database Selection panel and click **Next**.

The Request Center Database Creation panel appears.

The subsequent panels may look different depending on the database platform you select. Refer to the [Database Information Table](#) to determine your database platform.

- Step 9** Click **Next**. The Request Center Database Creation panel appears.

- If you have not created the database in advance, select **Yes**. Refer to the [Database Information Table](#) below to enter the database information and click **Create Database** button.

For a new installation, you can prepare the database in advance as described in the Configuring Databases section of this Chapter.



**Note**

The "create database" feature will create a very basic RequestCenter database that meets the minimum requirements for the Service Catalog application to proceed. This feature is recommended for a Demo or Test system, but for a Production system, it is advisable that you work with your DBA to create the RequestCenter database in advance which meets all of the product requirements as described in the Configuring Databases section, as well as any performance, reliability, and security requirements that adhere to your corporate policy.

- If you have already created your database, then select **No**. You will be prompted for the information of your existing database.
- If you are performing an upgrade installation, then select **No**. You will be prompted to enter the information of your existing RequestCenter database. Refer to Chapter 4: Upgrade Guide for more detailed information.

- Step 10** Click **Next**.



The installer will connect to the database to validate the required settings for the database. If the installer created the database for you, then it would meet all of the required settings, and the validation test would pass. If you provided the information for an existing database, then the installer may report a validation error if it detects that certain required database setting is missing. (Refer to the Configuring Databases section in this Chapter for the database requirements.) If a database validation error occurs, the installer will not allow you to move on. You can either:

- Close the error dialog and click **Cancel** to exit the installation wizard, or
- Fix the missing database setting on a separate database connection session. Then come back to this screen, close the error dialog, and click **Next** again. At this point, the installer will repeat the validation test, and if the test passes, it will let you move to the next panel.

**Step 11** If you had selected JBoss as the application server in Application Server Selection panel in Step 6 the installation procedure will be as follows:

- a. Choose Java Virtual Machine window is displayed. This window contains all of the java executable program that it detects on the computer. Select a Java version 1.6.0\_x from the list or click **Search Another Location** button to navigate to the correct location of Java 1.6.0\_x on your computer and Click **Next**.

The Request Center Configuration window is displayed.



**Note**

You must specify the location of Java for JBoss because the installer will install the JBoss Application Server software on your computer, and it will set the JAVA\_HOME variable in the JBoss configuration to use this particular Java.

- b. In the Request Center Configuration panel:
  - Enter the information for the JBoss server where the Request Center application (i.e. RequestCenter.war) will be deployed. See [Request Center Configuration Table for JBoss](#)
  - Click **Advanced Options** button. Enter the information on the Advanced Options window, see [Advanced Options Table for Request Center Configuration panel](#) for reference and click **Close**.
  - Click **Change Ports** button if you want to change any of the default port numbers assigned to the JBoss server for Request Center and click **Close**.
- c. Click **Next** to display the Service Link Configuration panel.
  - Enter the information for the JBoss server where Service Link application (i.e. ISEE.war) will be deployed. Refer to the [Application Server Information Worksheet](#) that you filled out earlier. See [Service Link Configuration Table for Custom Installation using JBoss Server](#).
  - Click **Change Ports** button if you want to change any of the default port numbers assigned to the JBoss server for Request Center and click **Close**.
  - Click **Next**. The Messaging Configuration window is displayed.



**Note**

For WebSphere or WebLogic, you will not see this panel. This is because for a Typical installation mode for WebSphere or WebLogic, the Request Center application (i.e. RequestCenter.war) and Service Link application (i.e. ISEE.war) will be deployed together in the same WebSphere or WebLogic server. Thus, there is no need for the installer to prompt for the information of the Service Link server. However, for a Typical installation mode for JBoss, the installer will always create two separate JBoss servers, one for Request Center application and one for Service Link application, even though both JBoss servers are running on the same machine.

- d. Enter the information for the JMS Queue server and click **Next**. Refer to the [Application Server Information Worksheet](#) that you filled out earlier. For more information, see [Messaging Configurtaion Table for Custom Installation](#).
- e. Enter details in the Service Catalog Administration panel as provided in [Service Catalog Administration Configuration Table](#).

**Step 12** If you had selected Weblogic or Websphere as the application server in Step 6 the installation proceure after Step 11 will be as follows:

- a. In Request Center Configuration panel,
  - Enter the information for the WebSphere or WebLogic server where Request Center application (i.e. RequestCenter.war) will be deployed. Refer to the [Application Server Information Worksheet](#) that you have filled out earlier. For more information, see [Request Center Configuration for WebLogic and WebSphere](#).
  - Click **Advanced Options**. To enter the advanced options details see, [Advanced Options Table for Request Center Configuration panel](#).
  - Click **Close** in the Advanced Options window and click **Next**.

The Service Link Configuration window is displayed.

- b. Enter the information for the WebSphere or WebLogic server where Service Link application (i.e. ISEE.war) will be deployed and click **Next**. Refer to the Application Server Information Worksheet that you have filled out earlier. See [Service Link Configuration Table for Custom Installation using WebLogic or WebSphere Server](#).




---

**Note** If Request Center is deployed in a Clustered WebSphere or Clustered WebLogic, then Service Link must be deployed in a separate WebSphere or WebLogic server that don't belong to the Cluster

---

- c. In the Messaging Configuration window enter information for the JMS Queue Server and click **Next**. Refer to the [Application Server Information Worksheet](#) that you filled out earlier. For more information, see [Messaging Configurtaion Table for Custom Installation](#).
- d. Click **Next** to display the Messaging Queues Configuration panel. Enter the queue names as how you prepared them for your WebSphere or WebLogic server. Refer to the [Application Server Information Worksheet](#) that you filled out earlier.




---

**Note** For JBoss, you will not see this panel. This is because for JBoss, all the queue names are preset when the installer installs the JBoss AS software on your computer. You do not have the option to overwrite these queue names.

---

- e. Click **Next** to display the Service Catalog Administration panel. Enter details as provided in [Service Catalog Administration Configuration Table](#).

**Step 13** Click **Next**. The Pre-Installation Summary window is displayed.

**Step 14** Click **Install** to begin installation.

The installer will display the progress bar as shown in Figure 2-37. It may take up to 30 minutes for the installer to complete. Do not interrupt the installation wizard during this process.

**Step 15** If the installation process completes successfully, the **Install Complete** window appears. Click **Done** to exit the installation wizard.

## Reference Tables for Installation Procedures



**Table 2-12 Database Information Table**

| Field            | Definition for SQL Server                                                                                                                                                  | Definition for Oracle                                                                                                                                                                                                                                       |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hostname         | Hostname or IP address of the database server                                                                                                                              | Host name or IP address of the database server.                                                                                                                                                                                                             |
| Port             | TCP/IP Port number used by the database server. The default value is 1433.                                                                                                 | TCP/IP Port number used by the database server. The default value is 1521.                                                                                                                                                                                  |
| Databasename     | The name of the database for the Service Catalog application. Enter alphanumeric characters and do not include any space characters. The default value is "RequestCenter". | Not Applicable                                                                                                                                                                                                                                              |
| sa Password      | To create the database in SQL Server, the installer must connect to SQL Server as "sa" user. Enter any sa password.                                                        | Not Applicable                                                                                                                                                                                                                                              |
| Username         | Database username is the login ID and the db_owner of the "RequestCenter" database. The default value is "RCUser".                                                         | Database username is the login ID and the schema name for the database schema. The default value is "RCUSER".                                                                                                                                               |
| Password         | Password for the database username.                                                                                                                                        | Password for the database username.                                                                                                                                                                                                                         |
| Confirm Password | Re-enter the password for the database username.                                                                                                                           | Re-enter the password for the database username.                                                                                                                                                                                                            |
| Database SID     | Not Applicable                                                                                                                                                             | Enter the Oracle SID                                                                                                                                                                                                                                        |
| SYS Password     | Not Applicable                                                                                                                                                             | To create the database schema in Oracle, the installer must connect to Oracle as the "sys" user. Enter the password for " sys" user.                                                                                                                        |
| User tablespace  | Not Applicable                                                                                                                                                             | Enter a tablespace name if you already have a specific Oracle tablespace name. The default tablespace name will be set to this value. If you leave this value blank, then the installer will use the default user tablespace provided by the Oracle server. |


| Field                     | Definition for SQL Server                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Definition for Oracle                                                                                                                                                                                                                                                                         |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Temp tablespace           | Not Applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <p>Enter a temp tablespace name if you already have a specific Oracle tablespace name. The default temp tablespace name will be set to this value.</p> <p>If you leave this value blank, then the installer will use the default temp user tablespace name provided by the Oracle server.</p> |
| Execute database scripts? | <p>The option is enabled only if you have clicked <b>No</b> in the Request Center Database Creation panel. This option should always be selected, which tells the installer to execute the sql scripts to either create a brand new schema in the RequestCenter database in the case of a new installation, or to upgrade an existing schema from a previous release to the current release in the case of an upgrade installation. (Refer to Chapter4: Upgrade Guide for more detailed information on upgrading database.)</p> <p>When you want to reinstall the product WAR files without overwriting the existing RequestCenter database, you can deselect this option. Make sure you understand its implication before deselecting this option.</p> |                                                                                                                                                                                                                                                                                               |

**Table 2-13** Request Center Configuration Table for JBoss

| Field                   | Definition                                                                                                                                                                                                                                                                                                                            |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Request Center hostname | Enter the fully qualified domain hostname or IP address of the current machine. The installer should detect the hostname or IP address of the current machine automatically, and display that value as the default value.                                                                                                             |
| JBoss admin username    | Since the installer will install the JBoss AS software automatically for you, it presets the JBoss admin username to "adminuser". This username can be used to connect to the JBoss Admin Console should you need to perform any administration tasks for the JBoss installation. This value is grayed out so you can't overwrite it. |
| JBoss admin password    | Enter a password for the JBoss "adminuser". Enter only alphanumeric characters with no spaces.                                                                                                                                                                                                                                        |
| Confirm password        | Re-enter a password for the JBoss "adminuser".                                                                                                                                                                                                                                                                                        |

| Field                        | Definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Service Link URL             | <div>  <p><b>Note</b> You will see this option if you have selected to install only the Request Center server on your computer. The computer will need to know the URL of the service link server to connect to the service link server at runtime if only request center server is installed on the computer.</p> </div> <p>Enter the http address that includes the hostname and portnumber of Service link server. The default port number used by Service Link on JBoss in 6080.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Configure as windows service | <p>(For Windows only) On Windows operating system, the installer can automatically configure the JBoss server as a windows service. Select this option if you would like the installer to configure the JBoss server as a service named "Cisco Request Center". This service will be configured to start up automatically at boot time. But right after the installation is completed, the service will not be started up for you. You will have to open the Microsoft Windows Services Console to start the "Cisco Request Center" service for the first time after the installation. The service however will be started automatically when the Windows operating system is rebooted.</p>                                                                                                                                                                                                                                                                                                                                                                                           |
| Configure IIS                | <p>(For Windows only) If the installer detects that IIS web server is installed on the same Windows machine where you execute the installer, it will present this option on the panel screen. Select this option if you would like the installer to automatically configure the tomcat plugin for the IIS web server to connect to the JBoss application server, which runs on the same machine.</p> <p>If you select this option, the installer will perform validation test against the IIS web server. If it detects that the IIS web server is missing some required settings, then the validation test will fail, and the installer will not let you proceed unless you deselect the "Configure IIS" option. (Refer the Software Configuration Prerequisites section for more information on IIS requirements.)</p> <div>  <p><b>Note</b> All fields are validated when you enter the Tab key to go to the next field, or when you click Next to proceed. All fields are mandatory</p> </div> |
| IIS Website                  | <p>This option is enabled only when you select the "Configure IIS" option above. Enter the name of the IIS site which already exists, that you want the installer to configure the tomcat plugin. The default value is "Default Web Site".</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

**Table 2-14** Service Link Configuration Table for JBoss



| Variable                     | Definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Service Link Hostname        | This value is preset to the same value that you entered for the Request Center hostname field on the Request Center Configuration panel. This is because both JBoss servers, one for Request Center application and one for Service Link applications, will be running on the same machine. This value is grayed out so you can't overwrite it.                                                                                                                                                                                                                                                                                                                                  |
| JBoss admin username         | <p>The installer has preset the JBoss admin username to "adminuser" because it will install the JBoss AS software automatically for you. This username can be used to connect to the JBoss Admin Console if you need to perform any administration tasks for the JBoss installation. This value is grayed out so you can't overwrite it.</p> <p> <b>Note</b> Field "JBoss admin password" is not presented on this panel. This is because the password is preset to the same value that you entered for the JBoss admin password field on the Request Center Configuration panel</p>            |
| Configure as windows service | (For Windows only) On Windows operating system, the installer can automatically configure the JBoss server as a windows service. Select this option if you would like the installer to configure the JBoss server as a service named "Cisco Service Link". This service will be configured to start up automatically at boot time. But right after the installation is completed, the service will not be started up for you. You will have to open the Microsoft Windows Services Console to start the "Cisco Service Link" service for the first time after the installation. The service however will be started automatically when the Windows operating system is rebooted. |

**Table 2-15** Messaging Configuration Table

| Field                    | JBoss                                                                                                                   | WebLogic                                                                            | WebSphere                                                                                                                                                                                           |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Queue connection factory | Value of JMS Queue Connection Factory for JBoss is preset to "jms/RemoteConnectionFactory", and is grayed out.          | Default value of JMS Queue Connection Factory for WebLogic is "NSConnectionFactory" | Default value of JMS Queue Connection Factory for WebSphere is "NSConnectionFactory"                                                                                                                |
| Queue username           | Username that can have read/write access to JMS Queues. This Value for JBoss is preset to "jmsuser", and is grayed out. | The value of username for WebLogic is "weblogic".                                   | For WebSphere, Bus security feature must be turned off, so there is no authentication required to access the JMS queues. But, you must enter a value here. Enter the value "guest" as the username. |

| Field            | JBoss                                                                                                                              | WebLogic                                    | WebSphere                                                                                                                                                                                                    |
|------------------|------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Queue password   | For JBoss, enter a password for the "jmsuser". The "jmsuser" will be created by the installer when it installs the JBoss software. | Enter the password for the "weblogic" user. | For WebSphere, Bus security feature must be turned off, so there is no authentication required to access JMS queues. But, you must enter a value here. Go ahead and enter the value "guest" as the password. |
| Confirm password | This field is applicable for JBoss only. Re-enter the password for the "jmsuser".                                                  | Not Applicable                              | Not Applicable                                                                                                                                                                                               |

**Table 2-16** .Service Catalog Administration Configuration Table

| Field                                       | Definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SMTP hostname                               | <p>Enter the fully qualified domain hostname or IP address of the SMTP server. The Service Catalog application will connect to this SMTP server to send out all email notifications.</p> <div>  <p><b>Note</b> There is an optional Test SMTP button on this panel. After you enter the SMTP hostname and system email address, you can click the Test SMTP button to verify the connection to the SMTP server. The installer will display a message dialog which shows whether the Test connection to the SMTP server succeeds or fails. If the SMTP server test connection fails, the installer will still let you move on to the next step. Just close the message dialog, then click Next to continue.</p> </div> |
| SMTP Port                                   | The SMTP server must be listening to port 25.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| System email address                        | Enter the email address of the system administrator. This is used as the sender's email address for all system-level email notifications.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Service Catalog Site Administrator Password | <p>Enter the password for the Site Administrator of the application. The password cannot be blank.</p> <div>  <p><b>Note</b> The Site Administrator's username is preset to "admin" and can not be changed.</p> </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Confirm Password                            | Re-enter the password for site administrator.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

**Table 2-17 Request Center Configuration for WebLogic and WebSphere**

| Field                    | WebLogic                                                                                                                                                                                                                                                                                         | WebSphere                                                                                                                                                                                                                                                                                   |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Request Center hostname  | <p>Enter the fully qualified domain hostname or IP address of the machine where the WebLogic server is running.</p> <p>The installer does not have to be executed on the same machine where the WebLogic server is running. So make sure that you enter the correct value for hostname here.</p> | <p>Enter the fully qualified domain hostname or IP address of the machine where the WebSphere server is running.</p> <p>The installer does not have to be executed on the same machine where the WebSphere is running. So make sure that you enter the correct value for hostname here.</p> |
| Request Center HTTP port | Enter the Listen Port number assigned to the WebLogic server. The default value is 7001.                                                                                                                                                                                                         | Enter the WC_default port number assigned to the WebSphere server. The default value is 9080.                                                                                                                                                                                               |
| Request Center JNDI port | Enter the Listen Port number assigned to the WebLogic server. The default value is 7001.                                                                                                                                                                                                         | Enter the BOOTSTRAP_ADDRESS port number assigned to the WebSphere server. The default value is 2809.                                                                                                                                                                                        |
| Request Center protocol  | Select the value "http" from the dropdown list. If you select "https", then make sure that you enter the SSL Listen Port number in the Request Center HTTP port field instead.                                                                                                                   | Select the value "http" from the dropdown list. If you select "https", then make sure that you enter the "WC_default_secure port number" in the Request Center HTTP port field instead.                                                                                                     |
| Datasource JNDI name     | Enter the datasource JNDI name for the RequestCenter database which you have already configured for the WebLogic server as a prerequisite. The default value is "eis/REQUESTCENTERDS".                                                                                                           | Enter the datasource JNDI name for the RequestCenter database which you have already configured for the WebSphere server as a prerequisite. The default value is "eis/REQUESTCENTERDS".                                                                                                     |
| Datamart JNDI name       | Enter the datasource JNDI name for the Datamart database here. The Datamart database is needed if you plan to install the Reporting module. If you don't have the Reporting module, you can leave this value blank. The default value is "eis/DATAMARTDS".                                       | Enter the datasource JNDI name for the Datamart database here. The Datamart database is needed if you plan to install the Reporting module. If you don't have the Reporting module, you can leave this value blank. The default value is "eis/DATAMARTDS".                                  |



**Table 2-18 Database Information Table for Advanced Installation**

| Field                       | Definition for SQL Server                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Definition for Oracle                                                                                         |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| Hostname                    | Hostname or IP address of the database server                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Hostname or IP address of the database server                                                                 |
| Port                        | TCP/IP Port number used by the database server. The default value is 1433.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | TCP/IP Port number used by the database server. The default value is 1521.                                    |
| Database SID                | Not Applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Enter the Oracle SID                                                                                          |
| Username                    | Database username is the login ID and the db_owner of the “RequestCenter” database. The default value is “RCUser”.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Database username is the login ID and the schema name for the database schema. The default value is “RCUSER”. |
| Password                    | Password for the database username.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Password for the database username.                                                                           |
| Execute Database Scripts?   | <p>The option is enabled only if you have clicked <b>No</b> in the Request Center Database Creation panel. This option should always be selected, which tells the installer to execute the sql scripts to either create a brand new schema in the RequestCenter database in the case of a new installation, or to upgrade an existing schema from a previous release to the current release in the case of an upgrade installation. (Refer to Chapter4: Upgrade Guide for more detailed information on upgrading database.)</p> <p>When you want to reinstall the product WAR files without overwriting the existing RequestCenter database, you can deselect this option. Make sure you understand its implication before deselecting this option.</p> |                                                                                                               |
| <b>Advanced Options</b>     | This button is available in the Request Center Database window for Oracle only. When you click this button, Advanced Options window with the following fields is displayed. Click <b>Close</b> after you enter the required details in the Advanced Options window.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                               |
| Enable multiple tablespace? | Select this option if your existing Request Center database was created on multiple table spaces on Oracle.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                               |
| Default tablespace          | The name of the tablespace where all of the definitional-data tables are created. Definitional-data tables have names that start with DEF. The default value is CCPDATA01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                               |
| Directory tablespace        | The name of the tablespace where all of the directory-data tables are created. Directory-data tables have names that start with DIR. The default value is CCPDATA02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                               |
| Transaction tablespace      | <p>The name of the tablespace where all of the transactional-data tables are created. Transactional-data tables have names that start with TX. The default value is CCPDATA03.</p> <p>Any tables whose names are different from DEF, DIR or TX are stored in the Default tablespace</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                               |
| Index tablespace            | The name of the tablespace where all of the table indexes are created. The default value is CCPINDEX.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                               |

**Table 2-19**      **Advanced Options Table for Request Center Configuration panel**

| Field                  | Definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Enable clustering      | This option is not available for JBoss and is grayed out.<br><br>For WebSphere or WebLogic, select this option if you have a Clustered WebSphere or Clustered WebLogic environment.                                                                                                                                                                                                                                                                                           |
| Multicast address      | This option is not available for JBoss and is grayed out.<br><br>For WebSphere or WebLogic, if you select the Enable clustering option above, then you must enter a multicast IP address, which the Request Center application uses to communicate among the different nodes in the Cluster.                                                                                                                                                                                  |
| Custom content?        | Select this option if you want to insert custom contents into the RequestCenter.war during the installation. After the installation your deployed RequestCenter.war directory will contain the custom contents, such as ISF and custom stylesheets. This is an optional step. If you don't install Custom Content at installation time, then after the installation, you can always extract the Content zip file manually on top of the deployed RequestCenter.war directory. |
| Custom content archive | Enter the location of the zip file that contains the custom contents. The zip file must adhere to the directory structure underneath RequestCenter.war directory. For example, inside the content.zip file, there are the following contents: <ul style="list-style-type: none"> <li>isfcode\*</li> <li>custom\mystyle\*</li> <li>images\*</li> </ul> Then everything will be extracted underneath RequestCenter.war directory, keeping the same directory structure intact.  |

**Table 2-20**      **Service Link Configuration Table for Custom Installation using JBoss Server**

| Variable              | Definition                                                                                                                                                                                                                                                                                                                                       |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Service Link Hostname | This value is preset to the same value that you entered for the Request Center hostname field on the Request Center Configuration panel. This is because both JBoss servers, one for Request Center application and one for Service Link applications, will be running on the same machine. This value is grayed out so you cannot overwrite it. |
| JBoss admin username  | The installer has preset the JBoss admin username to "adminuser" because it will install the JBoss AS software automatically for you. This username can be used to connect to the JBoss Admin Console if you need to perform any administration tasks for the JBoss installation. This value is grayed out so you can't overwrite it.            |



| Variable                     | Definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| JBoss admin password         | <p>If you chose to install only Service Link server on this computer, then the installer will prompt you to enter the password for the JBoss administrator user.</p> <p>This field will not be shown if you chose the "Both" option instead. This is because the password is preset to the same value that you entered for the JBoss admin password field on the Request Center Configuration panel.</p>                                                                                                                                                                                                                                                                                       |
| Confirm password             | <p>Re-enter the password for the JBoss administrative user.</p> <p>This field will not be shown if you chose the "Both" option.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Configure as windows service | <p>(For Windows only) On Windows operating system, the installer can automatically configure the JBoss server as a windows service. Select this option if you would like the installer to configure the JBoss server as a service named "Cisco Service Link".</p> <p>This service will be configured to start up automatically at boot time. But right after the installation is completed, the service will not be started up for you. You will have to open the Microsoft Windows Services Console to start the "Cisco Service Link" service for the first time after the installation. The service however will be started automatically when the Windows operating system is rebooted.</p> |

**Table 2-21** *Messaging Configurtaion Table for Custom Installation*

| Field                    | Definition for JBoss                                                                                                                   | Definition for WebLogic                                                                                                                                                                                                                                       | Definition of WebSphere                                                                                                                                                                                                                                       |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Queue hostname           | Enter the fully qualified domain hostname or IP address of the JMS server.<br><br>The JMS server is same as the Request Center server. | The JMS server can reside in any WebSphere or WebLogic server. But if you deploy Request Center in a Clustered WebSphere or Clustered WebLogic, then the JMS server needs to be configured on the WebSphere or WebLogic server where you deploy Service Link. | The JMS server can reside in any WebSphere or WebLogic server. But if you deploy Request Center in a Clustered WebSphere or Clustered WebLogic, then the JMS server needs to be configured on the WebSphere or WebLogic server where you deploy Service Link. |
| Queue port               | Enter the JNDI Port assigned to the RequestCenterserver. The default value is 4447.                                                    | Enter the Listen Port number assigned to the WebLogic server. The default value is 7001.                                                                                                                                                                      | Enter the BOOTSTRAP_ADDRESS port number assigned to the WebSphere server. The default value is 2809.                                                                                                                                                          |
| Queue connection factory | For JBoss, this value is preset to "jms/RemoteConnectionFactory", and thus is grayed out                                               | The default value is "NSConnectionFactory"                                                                                                                                                                                                                    | The default value is "NSConnectionFactory"                                                                                                                                                                                                                    |
| Queue Username           | Username that can have read/write access to JMS Queues. This Value for JBoss is preset to "jmsuser", and is grayed out.                | The value of username for WebLogic is "weblogic".                                                                                                                                                                                                             | For WebSphere, Bus security feature must be turned off, so there is no authentication required to access the JMS queues. But, you must enter a value here. Enter the value "guest" as the username.                                                           |

| Field            | Definition for JBoss                                                                                                               | Definition for WebLogic                     | Definition of WebSphere                                                                                                                                                                                             |
|------------------|------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Queue password   | For JBoss, enter a password for the "jmsuser". The "jmsuser" will be created by the installer when it installs the JBoss software. | Enter the password for the "weblogic" user. | For WebSphere, Bus security feature must be turned off, therefore there is no authentication required to access JMS queues. But, you must enter a value here. Go ahead and enter the value "guest" as the password. |
| Confirm Password | This field is applicable for JBoss only. Re-enter the password for the "jmsuser".                                                  | Not Applicable                              | Not Applicable                                                                                                                                                                                                      |

**Table 2-22** Service Link Configuration Table for Custom Installation using WebLogic or WebSphere Server

| Field                  | Definition for WebLogic                                                                                                                                                                                                                                                                                                                                                                                                    | Definition for Websphere                                                                                                                                                                                                                                                                                                                                                                                                      |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Service Link hostname  | <p>Enter the fully qualified domain hostname or IP address of the machine where the WebLogic server is running.</p> <div>  <p><b>Note</b> The installer does not have to be executed on the same machine where the WebSphere or WebLogic server is running. So make sure that you enter the correct value for hostname here.</p> </div> | <p>Enter the fully qualified domain hostname or IP address of the machine where the WebSphere server is running.</p> <div>  <p><b>Note</b> The installer does not have to be executed on the same machine where the WebSphere or WebLogic server is running. So make sure that you enter the correct value for hostname here.</p> </div> |
| Service Link HTTP Port | Enter the Listen Port number assigned to the WebLogic server. The default value is 7001.                                                                                                                                                                                                                                                                                                                                   | Enter the WC_default port number assigned to the WebSphere server. The default value is 9080.                                                                                                                                                                                                                                                                                                                                 |

| Field                  | Definition for WebLogic                                                                                                                                                                              | Definition for Websphere                                                                                                                                                                            |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Service Link JNDI port | Enter the Listen Port number assigned to the WebLogic server. The default value is 7001                                                                                                              | Enter the BOOTSTRAP_ADDRESS port number assigned to the WebSphere server. The default value is 2809.                                                                                                |
| Service Link protocol  | Select the value "http" from the drop down list. If you select "https" from the dropdown list, then make sure that you enter the SSL Listen Port number in the Service Link HTTP port field instead. | Select the value "http" from the drop down list. If you select "https", then make sure that you enter the WC_default_secure port number in the Service Link HTTP port field instead.                |
| Datasource JNDI name   | Enter the datasource JNDI name for the RequestCenter database which you have already configured for the WebSphere or WebLogic server as a prerequisite. The default value is "eis/REQUESTCENTERDS".  | Enter the datasource JNDI name for the RequestCenter database which you have already configured for the WebSphere or WebLogic server as a prerequisite. The default value is "eis/REQUESTCENTERDS". |

## Postinstallation Configuration for JBoss

The Service Catalog installer installs and configures JBoss for the Request Center and Service Link applications on your computer, but it will not automatically start up the JBoss servers. This section contains instructions for starting and stopping the JBoss servers for Request Center and Service Link.

### Starting JBoss Server on Windows

If you selected the "Configure windows service" option for Request Center and Service Link during the installation, then the "Cisco Request Center" service and "Cisco Service Link" service are registered on your computer.

However, the installer does not automatically start up the windows services for the first time right after the installation. (They will be automatically started the next time you reboot your computer.) You can perform the following steps to start the services for the first time:

- 
- Step 1** Select *"Start > All Programs > Administrative Tools > Services"* on your computer.
  - Step 2** Select the service named **Cisco Request Center**, and click the **Start Service** button
  - Step 3** Wait for a few minutes for the Request Center server to be completely up. The JMS service is configured in the same JBoss server with the Request Center application; thus, you want to allow enough time for the JMS service to be ready before starting up the Service Link server.
  - Step 4** Select the service named **Cisco Service Link**, and click the **Start Service** button.
  - Step 5** To stop the JBoss servers: It is recommended that you stop the "Cisco Service Link" service first, then stop the "Cisco Request Center" service.
-

If you did not select the "Configure windows service" option during the installation, then you will need to execute a command script to start up each JBoss server. Perform the following steps to start the JBoss servers:

- 
- Step 1** It is assumed that your installation directory is "C:\CiscoPrimeServiceCatalog". Open a Command Prompt window, and navigate to the "C:\CiscoPrimeServiceCatalog\bin" directory.
- Step 2** Execute the script **startRequestCenter.cmd** to start the JBoss server for Request Center.
- Step 3** Wait for a few minutes for the Request Center server to be completely up. The JMS service is configured in the same JBoss server with the Request Center application; thus, you want to allow enough time for the JMS service to be ready before starting up the Service Link server.
- Step 4** Open another Command Prompt window, and navigate to the "C:\CiscoPrimeServiceCatalog\ bin" directory.
- Step 5** Execute the script **startServiceLink.cmd** to start the JBoss server for Service Link.

**Note**

Because you start the JBoss server using command scripts, if you log out of the Windows operating system, the JBoss server will be automatically killed when your login session is ended. So make sure that you don't log off the session where the JBoss servers are running. Follow the instructions in the "Configure JBoss As Windows Service" section below if you want to configure the JBoss servers as windows services after the installation. When the JBoss servers are running as windows services, they will not be killed when you log out of Windows operating system.

---

- Step 6** To stop the JBoss servers: We recommended that you stop the Service Link server first.
- To stop the Request Center server, you can either:
- Enter Control+C in the Command Prompt window where the Service Link server or Request Center server is running, or
  - Execute the script "C:\CiscoPrimeServiceCatalog\bin\stopRequestCenter.cmd" located under the C:\CiscoPrimeServiceCatalog\bin directory.
- 

## Starting JBoss Server on Linux

Perform the following steps to start the JBoss Servers on Linux:

- 
- Step 1** It is assumed that your installation directory is "/opt/CiscoPrimeServiceCatalog". Use SSH to connect to the Linux machine as the "root" user, and navigate to the "/opt/CiscoPrimeServiceCatalog/bin" directory.
- Step 2** Execute the following command to start the JBoss server for Request Center in the background:
- ```
./startRequestCenter.sh > startRequestCenter.log 2>&1 &
```
- Step 3** Wait for a few minutes for the Request Center server to be completely up. The JMS service is configured in the same JBoss server with the Request Center application; thus, you want to allow enough time for the JMS service to be ready before starting up the Service Link server.
- Step 4** Execute the following command to start the JBoss server for Service Link in the background:
- ```
./startServiceLink.sh > startServiceLink.log 2>&1 &
```

- Step 5** To stop the JBoss servers: It is recommended that you stop the Service Link server first. Execute the following scripts as the "root" user to stop the JBoss servers for Service Link and Request Center:
- ```
./stopServiceLink.sh
./stopRequestCenter.sh
```
-

Configure JBoss As Windows Service

- Step 1** If you did not select the "Configure windows service" option for Request Center or Service Link during the installation, you can still use the following scripts after the installation to configure the JBoss servers as windows services.
- Step 2** It is assumed that your installation directory is "C:\CiscoPrimeServiceCatalog". Open a Command Prompt window, and navigate to the "C:\CiscoPrimeServiceCatalog\bin" directory. Execute the script "installRequestCenterService.cmd" to configure the JBoss server for Request Center as a window service. The service will be named "Cisco Request Center".
- Step 3** Execute the script "installServiceLinkService.cmd" to configure the JBoss server for Service Link as a window service. The service will be named "Cisco Service Link".
- Step 4** To remove the windows services: First you need to manually stop the "Cisco Request Center" and "Cisco Service Link" services. Then, execute the scripts "uninstallRequestCenterService.cmd" and "uninstallServiceLinkService.cmd"
-

Verifying Your Installation

Verify your installation by performing the following tasks:

- Step 1** Open a browser, and connect to the following URL: <http://<hostname>:<port>/RequestCenter> where
- <hostname> = The fully qualified domain hostname of the computer where you installed the JBoss server for Request Center.
- <port> = The HTTP Port number assigned to the JBoss server for Request Center. The default value for HTTP Port number is 8080.



Note

If you are on a Windows operating system, and during the installation you selected the "Configure IIS" option, then the Service Catalog installer has automatically configured the tomcat plugin for the IIS web server on your machine to redirect to the JBoss server. Thus, in this case, the URL for Request Center should point to the port number used by the IIS web server instead. For example, if your IIS web server is using port 80, then the URL should be <http://<hostname>:80/RequestCenter>, or <http://<hostname>/RequestCenter> since port 80 can be omitted from the URL.

- Step 2** Log in as the Site Administrator. For a new installation of Service Catalog, the username for the Site Administrator is "admin" and the password is the value you entered on the Service Catalog Administration Configuration panel of the installation wizard. The My Services home panel should appear.

- Step 3** Choose the Service Link menu in the Module drop-down list. The Service Link home panel should appear.
- Step 4** On the left hand side of the panel, under Service Link Status, verify that the connection has a green status.

You have completed the installation for Cisco Prime Service Catalog on JBoss.

Postinstallation Configuration for WebLogic

When the Service Catalog installation wizard completes, it creates the following WAR files underneath the “<ServicePortal_Install_Dir>\dist” directory:

- RequestCenter.war
- ISEE.war

The Service Catalog installation wizard did not automatically deploy these WAR files on your WebLogic Server. You need to follow the instructions in this section to manually deploy these WAR files. See the Application Server Information Worksheet that you completed earlier to get the parameter values needed during the deployment.

Extracting WAR Files

- Step 1** Create a subdirectory called **applications** underneath the “<BEA_HOME>\user_projects\domain\<your_domain>” directory, if it does not already exist. Note that you perform this task on the computer where the WebLogic Administration Server is running.
- Step 2** Create two subdirectories underneath “applications” as follows:
- RequestCenter
 - ServiceLink
- Step 3** Extract the WAR files (generated by the Service Catalog installation wizard) into the new directories that you just created:
- a. Unzip file “<ServicePortal_Install_Dir>\dist\RequestCenter.war” into the “<BEA_HOME>\user_projects\domain\<your_domain>\applications\RequestCenter” directory.
 - b. Unzip file “<ServicePortal_Install_Dir>\dist\ISEE.war” into the “<BEA_HOME>\user_projects\domain\<your_domain>\applications\ServiceLink” directory.



Note If the RequestCenter or ServiceLink subdirectory under the “<BEA_HOME>\user_projects\domain\<your_domain>\applications” directory is not empty, you must first empty the entire directory before extracting the contents of the new RequestCenter.war or ISEE.war file into it. This is because the unzip utility may only overwrite files with the same names. There may be some “remnants” of old files in your destination directory that may be inadvertently deployed.

Deploying RequestCenter.war

- Step 1** Log on to the WebLogic Administration Console.
 - Step 2** Start your WebLogic Server (or WebLogic Cluster) if it is not already running.
 - Step 3** If WebLogic was installed in PRODUCTION mode, click **Lock & Edit** so that you can proceed to make changes. Otherwise, you can skip this step.
 - Step 4** In the left pane, click **Deployments**.
 - Step 5** Click **Install**.
 - Step 6** Browse to (or enter the full pathname of) the directory “<BEA_HOME>\user_projects\domain\<your_domain>\applications.” You should see the two subdirectories called “RequestCenter” and “ServiceLink”.
 - Step 7** Click the radio button for **RequestCenter**, then click **Next**.
 - Step 8** Choose the **Install this deployment as an application** option, then click **Next**.
 - Step 9** Choose your WebLogic Server (or WebLogic Cluster) as the Target, then click **Next**.
 - Step 10** Choose the **Copy this application onto every target for me** option, then click **Next**.
 - Step 11** In the Name field, enter **RequestCenter**, then click **Next**.
 - Step 12** Choose the **No, I will review the configuration later** option, then click **Finish**. The progress indicator begins. This may take several minutes to complete.
 - Step 13** Wait until the screen is refreshed to show that the “RequestCenter” application has State=Active and Health=OK. If your WebLogic Application Server was installed in PRODUCTION mode, then the State may be set to “Prepared” until you click **Activate Changes**.
-

Deploying ISEE.war

- Step 1** Log on to the WebLogic Administration Console.
- Step 2** Start your WebLogic Server if it is not already running (if you have a WebLogic Cluster environment, then start the “Service Link WebLogic Server”. The Service Link application cannot be deployed on a Cluster).
- Step 3** If your WebLogic was installed in PRODUCTION mode, click **Lock & Edit** so that you can proceed to make changes. Otherwise, you can skip this step.
- Step 4** In the left pane, click **Deployments**.
- Step 5** Click **Install**.
- Step 6** Browse to (or enter the full pathname of) the directory “<BEA_HOME>\user_projects\domain\<your_domain>\applications.” You should see the two subdirectories called “RequestCenter” and “ServiceLink”.
- Step 7** Click the radio button for **ServiceLink**, then click **Next**.
- Step 8** Choose the **Install this deployment as an application** option, then click **Next**.
- Step 9** Choose your WebLogic Server as the Target. (If you have a WebLogic Cluster, choose the stand-alone “Service Link WebLogic Server” as the Target.) Then click **Next**.
- Step 10** Choose the **Copy this application onto every target for me** option, then click **Next**.

- Step 11** In the Name field, enter **ServiceLink**, then click **Next**.
- Step 12** Choose the **No, I will review the configuration later** option, then click **Finish**. The progress indicator begins. This may take several minutes to complete.
- Step 13** Wait until the screen is refreshed to show that the “ServiceLink” application has State=Active and Health=OK. If your WebLogic Application Server was installed in PRODUCTION mode, then the State may be set to “Prepared” until you click **Activate Changes**.
-

Verifying Your Installation

- Step 1** Test your installation by opening a new browser and connect to the following URL:
- `http://<AppServer_Host>:<Port>/RequestCenter`
- where `<AppServer_Host>` = the host name of your WebLogic Server, and `<Port>` = the port number used by your WebLogic Server.
- For example,
- `http://m1.cisco.com:8001/RequestCenter`
- Step 2** Log in as the Site Administrator. For a new installation of Service Catalog, the username for the Site Administrator is "admin" and the password is the value you entered on the Service Catalog Administration Configuration panel of the installation wizard. The My Services home page should appear.
- Step 3** Choose the **Service Link** menu in the Module drop-down list. The Service Link home panel appears.
- Step 4** On the left hand side of the panel, under Service Link Status, verify that the connection has a green status.
- You have completed the installation for Cisco Prime Service Catalog on WebLogic.
-

Configuring Web Server

At this time, you should configure the plugin for your Web Server to point to your WebLogic Server (or your WebLogic Cluster). The following Web Servers are supported with WebLogic Server:

- Apache 2.2.x
- IIS 7.5

This chapter does not contain instructions on how to configure your Web Server Plugin. Any plugin configurations between your Web Server and WebLogic are not handled by the Service Catalog installer program. There is no Cisco library or binary that needs to be installed or configured on your Web Server installation. You should follow instructions provided by either Oracle (for WebLogic Plugin) or by the vendor of your web server.

This section contains only examples of the settings that you may want to add to your web server configuration file.

The following are examples for the settings for **Apache 2.2 Web Server**. Add the following entries to the end of file **httpd.conf**:

```
LoadModuleweblogic_module modules/mod_wl_22.so
```

```

<IfModulemod_weblogic.c>
WebLogicHostm1.mydomain.com
WebLogicPort 8001
</IfModule>

<Location /RequestCenter>
SetHandlerweblogic-handler
PathTrim /
</Location>

```

The following are examples for the settings for **IIS 7.5 Web Server**. Add the following entries to file **iisproxy.ini**:

```

WebLogicHost=m1.mydomain.com
WebLogicPort=8001
ConnectTimeoutSecs=20
ConnectRetrySecs=5
KeepAliveEnabled=true
KeepAliveSecs=20
WlForwardPath=/RequestCenter

```

After you complete the Plugin configuration, you need to restart both the Web Server and the WebLogic Application Server.

Repeat the steps described in the [“Verifying Your Installation” section on page 2-77](#) to verify that your Web Server plugin is configured correctly to point to your WebLogic Server. However, this time connect to the following URL =

`http://<WebServer_Host>:<WebServer_Port>/RequestCenter`

where `<WebServer_Host>` = the host name of your Web Server, and `<WebServer_Port>` = the port number used by your Web Server (omit the port number if it is set to 80).

For example,

`http://webserver.cisco.com/RequestCenter`

Postinstallation Configuration for WebSphere

When the Service Catalog installation wizard completes, it creates WAR files underneath the `<ServicePortal_Install_Dir>/dist` directory:

- RequestCenter.war
- ISEE.war

The Service Catalog installation wizard did not automatically deploy the WAR files on your WebSphere Server. You will need to follow the instructions in this section to manually deploy WAR files. See the Application Server Information Worksheet that you completed earlier to get the parameter values needed during the deployment.

Deploying RequestCenter.war

-
- Step 1** Log on to the WebSphere Administration Console.
 - Step 2** Start your WebSphere Server (or WebSphere Cluster) if it is not already running.
 - Step 3** Choose **Applications > Application Types**, and click **WebSphere enterprise applications**.

- Step 4** In the right pane, click **Install**. The “Path to the new application” panel appears.
- Step 5** If your browser is running on the same machine where `<ServicePortal_Install_Dir>` resides, then choose the **Local file system** option. Otherwise, choose the **Remote file system** option.
- Step 6** Click **Browse**, and navigate to the “`<ServicePortal_Install_Dir>/dist`” directory.
- Step 7** Choose **RequestCenter.war** and click **OK**.
- Step 8** Click **Next**. The “How do you want to install the application?” panel appears.

Figure 2-16 Generate Default Bindings

Preparing for the application installation

How do you want to install the application?

☐ Fast Path - Prompt only when additional information is required.

☒ Detailed - Show all installation options and parameters.

☐ Choose to generate default bindings and mappings

☒ Generate Default Bindings

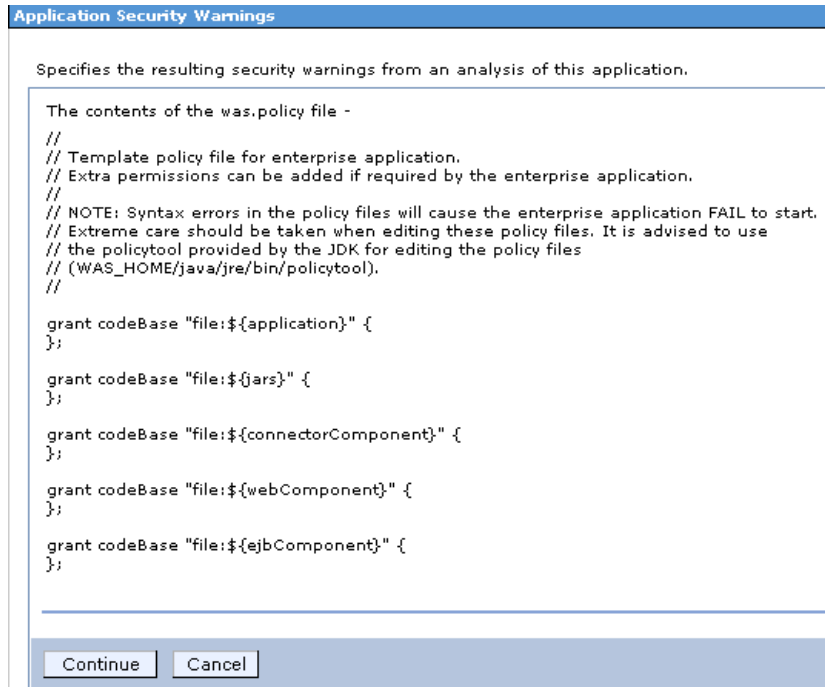
☐ Override existing bindings

Specific bindings file

☒ Use default virtual host name for Web and SIP modules:

Host name

- Step 9** Perform the following tasks on this panel:
- Choose the **Detailed** option.
 - Click **Choose to generate default bindings and mappings**.
 - Choose the **Generate Default Bindings** option.
 - Choose the **Use default virtual host name for Web and SIP modules** option.
 - In the Host Name field, enter `ns_host`.
- Step 10** If the following Application Security Warnings panel appears, you can safely ignore it and click **Continue**.

Figure 2-17 Application Security Warnings

- Step 11** On the “Step 1: Select installation options” panel, enter RequestCenter in the “Application name” field, overwriting the existing value.
- Step 12** Click **Next**. The “Step 2: Map modules to servers” panel appears.

Figure 2-18 Map Modules to Servers

Install New Application ?

Specify options for installing enterprise applications and modules.

[Step 1](#) Select installation options

→ **[Step 2: Map modules to servers](#)**

[Step 3](#) Provide JSP reloading options for Web modules

[Step 4](#) Map shared libraries

[Step 5](#) Map shared library relationships

[Step 6](#) Initialize parameters for servlets

[Step 7](#) Map virtual hosts for Web modules

[Step 8](#) Map context roots for Web modules

[Step 9](#) Summary

Map modules to servers

Specify targets such as application servers or clusters of application servers where you want to install the modules that are contained in your application. Modules can be installed on the same application server or dispersed among several application servers. Also, specify the Web servers as targets that serve as routers for requests to this application. The plug-in configuration file (plugin-cfg.xml) for each Web server is generated, based on the applications that are routed through.

Clusters and servers:

Select	Module	URI	Server
<input type="checkbox"/>	newScale-RequestCenter	RequestCenter.war,WEB-INF/web.xml	WebSphere:cell=localhostCell01,node=localhostNode01,server=server1

Step 13 Perform the following tasks on this panel:

- First, choose your WebSphere Server name (or WebSphere Cluster name) in the “Clusters and servers” drop-down list.
- Next, click the **Select All** icon in the table header. This will automatically select all of the rows in the table.
- Next, click **Apply** next to the “Clusters and servers” drop-down list. This will automatically set the value in the Server column in the table to the selected WebSphere Server name (or WebSphere Cluster name).

Step 14 Click **Next**.

Step 15 Skip Steps 3–6, and go directly to Step 7 by clicking the **Step 7: Map virtual hosts for Web modules** link on the left pane.

Figure 2-19 Map Virtual Hosts for Web Modules

Install New Application

Specify options for installing enterprise applications and modules.

Step 1 Select installation options

Step 2 Map modules to servers

Step 3 Provide JSP reloading options for Web modules

Step 4 Map shared libraries

Step 5 Map shared library relationships

Step 6 Initialize parameters for servlets

→ **Step 7: Map virtual hosts for Web modules**

Step 8 Map context roots for Web modules

Step 9 Summary

Map virtual hosts for Web modules

Specify the virtual host where you want to install the Web modules that are contained in your application. You can install Web modules on the same virtual host or disperse them among several hosts.

☒ Apply Multiple Mappings

Select	Web module	Virtual host
<input type="checkbox"/>	newScale RequestCenter	ns_host

Previous Next Cancel

Step 16 Choose **ns_host** in the “Virtual host” drop-down list.

Step 17 Click **Next**.

Step 18 On the “Step 8: Map context roots for Web modules” panel, enter **/RequestCenter** in the Context Root field. Do not make any changes on this panel. Then, click **Next**.

Step 19 On the “Step 9: Summary” panel, click **Finish**.

Step 20 The installation process for “RequestCenter.war” begins. This process may take a few minutes to complete. Once you see the message “**Application RequestCenter installed successfully**” appear on the screen, click **Save** directly to the master configuration.

Figure 2-20 Application Installed Successfully

```
ADMA5013: Application RequestCenter installed successfully.
Application RequestCenter installed successfully.

To start the application, first save changes to the master configuration.

Changes have been made to your local configuration. You can:
• Save directly to the master configuration.
• Review changes before saving or discarding.

To work with installed applications, click the "Manage Applications" button.
Manage Applications
```

Step 21 On the Enterprise Applications panel, click the newly created **RequestCenter** link to open its Configuration panel.

- Step 22** Under the Detail Properties section, click the **Class loading and update detection** link. The “RequestCenter > Class loader” panel appears.

Figure 2-21 Class Loader

Enterprise Applications

Enterprise Applications > RequestCenter > Class loader

Use this page to configure the reloading of classes when application files

Configuration

General Properties

Class reloading options

☐ Override class reloading settings for Web and EJB modules

Polling interval for updated files
 Seconds

Class loader order

☒ Classes loaded with parent class loader first

☐ Classes loaded with local class loader first (parent last)

WAR class loader policy

☐ Class loader for each WAR file in application

☒ Single class loader for application

Apply OK Reset Cancel

- Step 23** Choose the **Single class loader for application** option.
- Step 24** Click **OK**.
- Step 25** Click **Save** directly to the master configuration.

Deploying ISEE.war

- Step 1** Log on to the WebSphere Administration Console.
- Step 2** Choose **Applications > Application Types**, and click **WebSphere enterprise applications**.
- Step 3** In the right pane, click **Install**. The “Path to the new application” panel appears.
- Step 4** If your browser is running on the same machine where `<ServicePortal_Install_Dir>` resides, then choose the **Local file system** option. Otherwise, choose the **Remote file system** option.
- Step 5** Click **Browse**, and navigate to the `<ServicePortal_Install_Dir>/dist` directory.
- Step 6** Choose **ISEE.war**, and click **OK**.
- Step 7** Click **Next**. The “How do you want to install the application?” panel appears.

Figure 2-22 Generate Default Bindings

Preparing for the application installation

How do you want to install the application?

☐ Fast Path - Prompt only when additional information is required.

☒ Detailed - Show all installation options and parameters.

☐ Choose to generate default bindings and mappings

☒ Generate Default Bindings

☐ Override existing bindings

Specific bindings file

☒ Use default virtual host name for Web and SIP modules:

Host name

Step 8 Perform the following tasks on this panel:

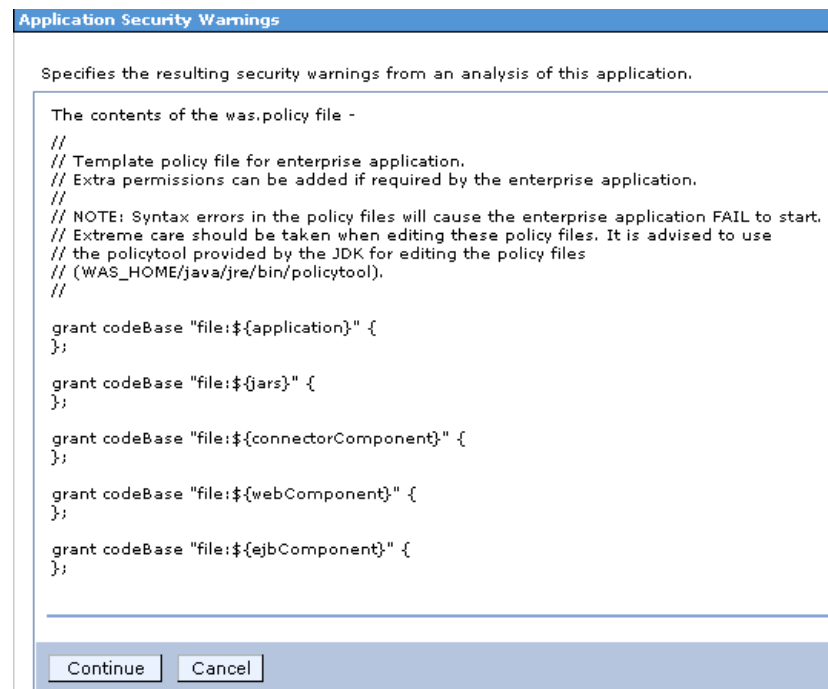
- Choose the **Detailed** option.
- Click **Choose to generate default bindings and mappings**.
- Choose the **Generate Default Bindings** option.
- Choose the **Use default virtual host name for Web and SIP modules** option.
- In the Host Name field, enter **ns_host**.

**Note**

If you have a WebSphere Cluster environment, then enter **sl_host** instead of “ns_host” for Host Name, because “ns_host” is mapped to the WebSphere Cluster, and “sl_host” is mapped to the “Service Link WebSphere Server”.

Step 9 Click **Next**.

Step 10 If the following Application Security Warnings panel appears, you can safely ignore it and click **Continue**.

Figure 2-23 **Application Security Warnings**

- Step 11** On the “Step 1: Select installation options” panel, enter **ServiceLink** in the “Application name” field, overwriting the existing value.
- Step 12** Click **Next**. The “Step 2: Map modules to servers” panel appears.

Figure 2-24 Map Modules to Servers

Install New Application ?

Specify options for installing enterprise applications and modules.

[Step 1](#) Select installation options

→ **[Step 2: Map modules to servers](#)**

[Step 3](#) Provide JSP reloading options for Web modules

[Step 4](#) Map shared libraries

[Step 5](#) Map shared library relationships

[Step 6](#) Initialize parameters for servlets

[Step 7](#) Map virtual hosts for Web modules

✦ [Step 8](#) Map context roots for Web modules

[Step 9](#) Summary

Map modules to servers

Specify targets such as application servers or clusters of application servers where you want to install the modules that are contained in your application. Modules can be installed on the same application server or dispersed among several application servers. Also, specify the Web servers as targets that serve as routers for requests to this application. The plug-in configuration file (plugin-cfg.xml) for each Web server is generated, based on the applications that are routed through.

Clusters and servers:

Select	Module	URI	Server
<input checked="" type="checkbox"/>	Service Link	ISEE.war,WEB-INF/web.xml	WebSphere:cell=localhostCell01,node=localhostNode01,server=server1

Step 13 Perform the following tasks on this panel:

- First, choose your WebSphere Server name in the “Clusters and servers” drop-down list. If you have a WebSphere Cluster environment, then make sure you choose the “Service Link WebSphere Server”.
- Next, click the **Select All** icon in the table header. This will automatically select all of the rows in the table.
- Next, click **Apply** next to the “Clusters and servers” drop-down list. This will automatically set the value in the Server column in the table to the selected WebSphere Server name.

Step 14 Click **Next**.

Step 15 Skip Steps 3–6, and go directly to Step 7 by clicking the **Step 7: Map virtual hosts for Web modules** link in the left pane.

Figure 2-25 Map Virtual Hosts for Web Modules

Install New Application

Specify options for installing enterprise applications and modules.

[Step 1](#) Select installation options

[Step 2](#) Map modules to servers

[Step 3](#) Provide JSP reloading options for Web modules

[Step 4](#) Map shared libraries

[Step 5](#) Map shared library relationships

[Step 6](#) Initialize parameters for servlets

→ [Step 7: Map virtual hosts for Web modules](#)

★ [Step 8](#) Map context roots for Web modules

[Step 9](#) Summary

Map virtual hosts for Web modules

Specify the virtual host where you want to install the Web modules that are contained in your application. You can install Web modules on the same virtual host or disperse them among several hosts.

☒ Apply Multiple Mappings

Select	Web module	Virtual host
<input type="checkbox"/>	Service Link	ns_host

Previous Next Cancel

- Step 16** In the “Virtual host” drop-down list, choose **ns_host**. If you have a WebSphere Cluster environment, choose **sl_host** instead of “ns_host”.
- Step 17** Click **Next**.
- Step 18** On the “Step 8: Map context roots for Web modules” panel, in the Context Root field, enter the value **/IntegrationServer**. Then, click **Next**.
- Step 19** On the “Step 9: Summary” panel, click **Finish**.
- Step 20** The installation process for “ISEE.war” begins. This process may take a few minutes to complete. Once you see the message “**Application ServiceLink installed successfully**” appear on the screen, then click **Save** directly to the master configuration.

Figure 2-26 Application Installed Successfully

ADMA5013: Application RequestCenter installed successfully.

Application RequestCenter installed successfully.

To start the application, first save changes to the master configuration.

Changes have been made to your local configuration. You can:

- [Save](#) directly to the master configuration.
- [Review](#) changes before saving or discarding.

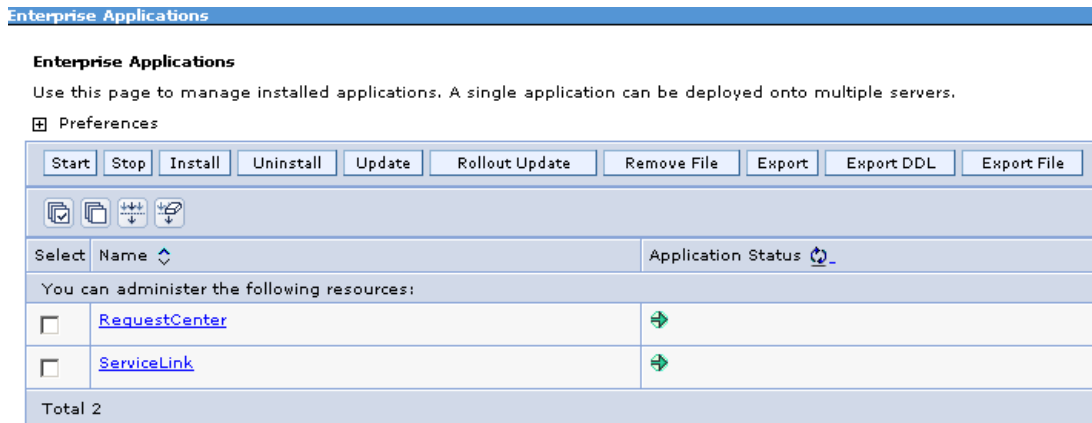
To work with installed applications, click the “Manage Applications” button.

[Manage Applications](#)

Starting Service Catalog Applications

- Step 1** Log on to the WebSphere Administration Console.
- Step 2** Choose **Applications > Application Types**, and click **WebSphere enterprise applications**. In the right pane, you should see two newly created applications named “**RequestCenter**” and “**ServiceLink**”.
- Step 3** Choose both applications and click **Start**.

Figure 2-27 Start Enterprise Applications



- Step 4** Verify that the **Application Status** for both applications is green.

Verifying Your Installation

- Step 1** Test your installation by opening a new browser and connect to the following URL:
`http://<AppServer_Host>:<Port>/RequestCenter`
 where <AppServer_Host> is the host name of the WebSphere Server machine, and
 <Port> is the *WC_defaulthost* port number for the WebSphere Server where RequestCenter.war was deployed.
- Step 2** Log in as the Site Administrator. For a new installation of Service Catalog, the username for the Site Administrator is "admin" and the password is the value you entered on the Service Catalog Administration Configuration panel of the installation wizard. The My Services home panel appears.
- Step 3** Choose **Service Link** in the Module drop-down list at the upper right hand corner of the screen, next to the Logout button. The Service Link home panel should appear.
- Step 4** On the left hand side of the panel, under Service Link Status, verify that the connection has a green status.

You have completed the installation for Cisco Prime Service Catalog on WebSphere.

Configuring Web Server

You should now configure the plugin for your Web Server to point to your WebSphere Server (or your WebSphere Cluster). The following Web Servers are supported with WebSphere Application Server:

- IBM HTTP Server 7.0
- Apache 2.2
- IIS 7.5

This chapter does not contain instructions on how to configure your Web Server Plugin. Any plugin configurations between your Web Server and WebSphere are not handled by the Service Catalog installer program. There is no Cisco library or binary that needs to be installed or configured on your Web Server installation. You should follow instructions provided by either IBM (for WebSphere Plugin) or by the vendor of your Web Server to configure the plugin.

This section describes only examples of the settings that you may want to add to your Web Server configuration file. The following is an example for the settings for **IBM HTTP Server v7.0**: (Note that all directory names shown below are only examples.)

Add the following entries to the end of file **httpd.conf**:

```
LoadModule was_ap22_module
/opt/IBM/HTTPServer/Plugins/bin/32bits/mod_was_ap22_http.so
WebSpherePluginConfig
/opt/IBM/WebSphere/AppServer/profiles/Dmgr01/config/cells/plugin-cfg.xml
```

Regenerating Plugin Config File

After you deployed RequestCenter.war and ISEE.war, you need to regenerate the WebSphere Plugin Configuration file so that it will pick up all of the new application names, port numbers, and virtual host names that you have configured for Service Catalog.

Step 1 On the machine where your WebSphere Deployment Manager server is running, navigate to the directory “<WAS_INSTALL_ROOT>/profiles/Dmgr01/bin.”

Step 2 Execute the following script:

- (For Windows) **GenPluginCfg.bat**
- (For UNIX or Linux) **./GenPluginCfg.sh**

This will modify file **plugin-cfg.xml**, which is usually located in the “<WAS_INSTALL_ROOT>/profiles/Dmgr01/config/cells” directory. In the example above for IBM HTTP Server v7.0, the parameter **WebSpherePluginConfig** that you added to the end of the **httpd.conf** file references this plugin-cfg.xml file. If your IBM HTTP Server is running on a different machine than your WebSphere Deployment Manager, then copy this plugin-cfg.xml file to your IBM HTTP Server machine, and set the WebSpherePluginConfig parameter to point to the plugin-cfg.xml file on your IBM HTTP Server machine.

You must also restart your IBM HTTP Server in order for it to pick up the changes.

Repeat the Steps described in the [“Verifying Your Installation” section on page 2-88](#) to verify that your Web Server plugin is configured correctly to point to your WebSphere Application Server. However, this time connect to the URL = `http://<WebServer_Host>:<Webserver_Port>/RequestCenter`, where <WebServer_Host> is the host name of the web server machine, and <WebServer_Port> is the port number used by the web server.



CHAPTER 3

Reporting Guide

- [Overview, page 3-1](#)
- [Cognos Application Server Requirements, page 3-2](#)
- [Cognos Database Server Requirements, page 3-4](#)
- [Installing Cognos Software, page 3-7](#)
- [Installing Reporting, page 3-10](#)
- [Configuring the Time Zone, page 3-24](#)

Overview

This chapter describes how to install the Reporting software module, and to use the various installer utilities developed by Cisco to install the Cognos software components and integrate them with the Cisco Prime Service Catalog application.

Cognos environment is comprised of an application server and a database server.

- An application server is the computer where you install the IBM Cognos software, and execute the configuration scripts to integrate Cognos with the Cisco Prime Service Catalog application.
- A database server is the computer where the ContentStore database resides.

The following sections describe the prerequisites for the Cognos application server and database server.

Intended Audience

This chapter is intended for system administrators and systems integrators responsible for installing and configuring Service Catalog products. This chapter assumes familiarity with the installation and configuration of Cognos and related components.

Cognos Application Server Requirements

Operating Systems

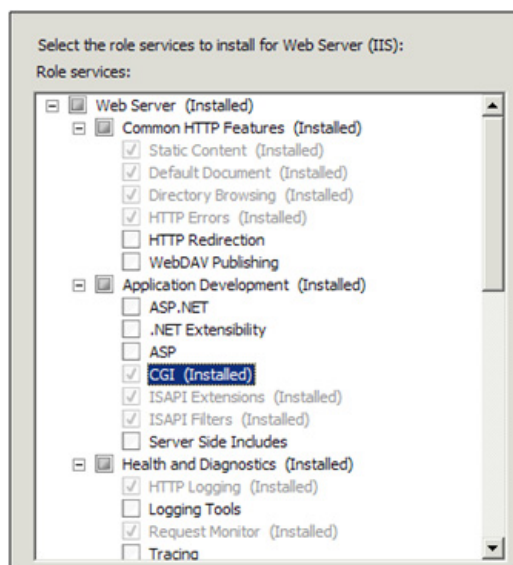
- IBM Cognos version 8.4.1 software must be installed on a computer that runs Windows Server 2008 R2 (64-bit) operating system.
- It is recommended but not required that the Cognos application server is a separate computer from the Cisco Prime Service Catalog application. However, if the Cisco Prime Service Catalog application is running on a UNIX or Linux computer, then the Cognos application server must be a separate machine with the Windows operating system.

Memory and Disk Space

- The application server must have at least 2 GB RAM and 2.5 GB of free disk space.
- There must be at least 1 GB of free disk space on the drive that contains the %TEMP% directory, if this is different from the drive when you plan to install the Cognos software.

Internet Information Services (IIS)

- The “Web Server (IIS)” role must be installed on the Cognos application server.
- The “World Wide Web Publishing Service” is configured to start up automatically.
- IIS must have a site named “Default Web Site”.
- The following role services must be enabled for IIS:
 - CGI
 - ISAPI Extensions
 - ISAPI Filters

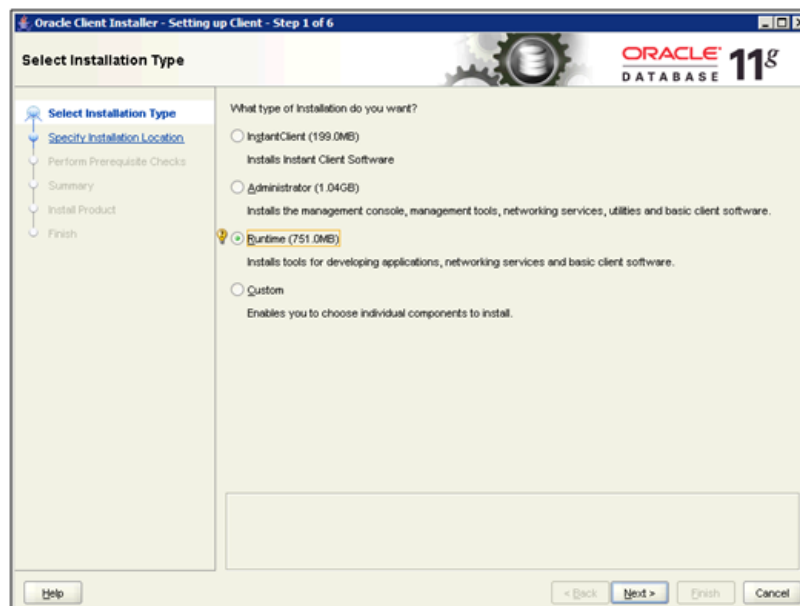


Internet Explorer

- Only Microsoft Internet Explorer version 7 (IE7) or version 8 (IE8) is supported. Use an IE7 or IE8 browser when accessing the Cognos UI or the “Advanced Reporting” module inside of the Cisco Prime Service Catalog application.
- The following browser settings must be enabled:
 - Accept third-party cookies
 - JavaScript
 - Run ActiveX controls and plug-ins
 - Script ActiveX controls marked safe for scripting
 - Active scripting
 - Allow META REFRESH

Database Client Connectivity

- The appropriate Database Client Connectivity software must be installed on the Cognos application server, and preconfigured to connect to all three databases: RequestCenter database, Datamart database, and ContentStore database.
- **For Oracle 11g:** The Oracle Client 11.2.0.1 (32-bit) software is required (note that the 32-bit version of Oracle 11g Client software must be used, even though the Windows Server 2008 R2 operating system is a 64-bit version). The Cognos software installation is not bundled with the necessary JDBC driver to connect to an Oracle database. Thus, if the ContentStore database is on Oracle, you must install the Oracle Client software on the Cognos application server. When installing Oracle Client 11.2.0.1, choose the “Runtime” option:



After installing Oracle Client software, you must launch the Net Configuration Assistant program, and configure the “Local Net Service Name” for the Oracle server where the ContentStore database resides. Furthermore, conduct a test using SQL*Plus to verify that you are able to connect to all three databases: RequestCenter, Datamart, and ContentStore.

- **For Microsoft SQL Server 2008 R2:** The SQL Server 2008 R2 Client Connectivity software is not required. The Cognos installation is already bundled with the necessary JDBC driver to connect to the SQL Server database server.

Other Requirements

- You must log in as a user with administrative privileges on the application server to install the Cognos software. This user must also have read and write permission to the %TEMP% directory.
- The following machines must all be set to the same timezone:
 - The Cisco Prime Service Catalog application server
 - The Cognos application server
 - The database server where the following databases reside: RequestCenter, Datamart, and ContentStore
- If Symantec Antivirus is installed on the application server, it must be at version 10.0.2.2000 or later.
- A domain name system (DNS) should have been configured for the computer. The Primary DNS suffix of the hostname must be assigned to an appropriate value (for example, *mydomain.com*) and the hostname should resolve to the fully qualified domain name (for example, “ping *myserver*” should resolve to *myserver.mydomain.com*).
- The Service Catalog application server and the Cognos application server must belong in the same domain. For example, if the Service Catalog application server was installed on a computer in the domain called *mydomain.com*, then the Cognos application server must also belong in the same domain *mydomain.com*.
- Throughout this installation process, whenever you have to enter a host name or a server name, you must enter it as a fully qualified domain name. For example, do not enter “*localhost*,” or “*cognosserver*”; instead, enter “*cognosserver.mydomain.com*”. When you connect to Service Catalog, you must also enter the fully qualified domain name in the URL, for example, *http://servicecatalog.mydomain.com/RequestCenter*.
- Throughout this installation process, whenever you open a Command Prompt window to execute any script, make sure you increase the Command History Buffer Size (to something like 999) so that you can view the entire output on the Command Prompt window. Not all output is captured in the installation log file.

Cognos Database Server Requirements

The Reporting module requires access to three databases:

- The RequestCenter database
- The Datamart database
- The ContentStore database

The RequestCenter and Datamart databases have already been created prior to running the Service Catalog installer. The ContentStore database is required exclusively for the Cognos software. The next section describes how to create the ContentStore database on either Oracle 11g or SQL Server 2008 R2.

The ContentStore database must be on the same type and version of RDBMS as the RequestCenter database. For example, if the RequestCenter database is on Oracle 11g, then the ContentStore database must also be created on Oracle 11g. If the RequestCenter database is on SQL Server 2008 R2, then the ContentStore database must also be created on SQL Server 2008 R2.

The database server must be configured to support TCP/IP protocol for client connectivity, and must be accessible from the Cognos application server.

The database administrator must back up the ContentStore database regularly because it contains all of the Cognos data, including custom reports and views as well as saved reports. To ensure the security and integrity of the ContentStore database, it is also important to protect the database from unauthorized or inappropriate access.

Creating ContentStore Database for Oracle 11g

For a new installation, you can prepare the tablespaces and user for the ContentStore database as described in this section before executing the Reporting installer, or you can let the Reporting installer create the database user on the default tablespaces for you by selecting the "Create Database" option presented by the installation wizard. The "Create Database" option of the Reporting installer is described in more detail in the "Installing Reporting" section.

To create tablespace and user for the ContentStore database:

1. Ensure that the Oracle SID value does not contain the underscore character. Also ensure that the Oracle Service Name and Oracle SID have the same value.
2. The Oracle database must be configured to use a Unicode character set (that is, either UTF-8 or UTF-16). To determine if the database character set is Unicode, execute the following sql command:

```
SELECT VALUE FROM NLS_DATABASE_PARAMETERS WHERE PARAMETER='NLS_CHARACTERSET';
```

If the returned value for the NLS_CHARACTERSET parameter is either AL32UTF8 or AL16UTF16, then your Oracle database supports Unicode. Otherwise, you need to create a new Oracle database, and specify the character set to be either AL32UTF8 or AL16UTF16 at creation time.

3. The ORACLE parameter CURSOR_SHARING must be set to EXACT. Execute the following command to find out what value the parameter CURSOR_SHARING is set to:

```
SHOW PARAMETER CURSOR_SHARING;
```

If CURSOR_SHARING is not set to EXACT, you can use the following command to change it:

```
ALTER SYSTEM SET CURSOR_SHARING=EXACT SCOPE=BOTH SID='*';
```

4. The schema for ContentStore must be separate from the schema for the RequestCenter database or the Datamart database. However, it is OK for the ContentStore schema to reside on the same Oracle instance as the RequestCenter schema.
5. Create a database user account called "CSUser", which is used by the Cognos application server to access the ContentStore database at runtime.
6. Grant the following permissions to the database user account "CSUser":
 - CONNECT to the database
 - CREATE/ALTER/DROP tables, triggers, views, procedures, and sequences

- INSERT/UPDATE/DELETE data in the ContentStore tables
-

Creating ContentStore Database for Microsoft SQL Server 2008 R2

For new installation, you can prepare the ContentStore database and login user as described in this section before executing the Reporting installer, or you can let the Reporting installer create the database and login user for you by selecting the "Create Database" option presented by the installation wizard. The "Create Database" option of the Reporting installer is described in more detail in the "Installing Reporting" section.

To create the ContentStore database and login user:

1. SQL Server must be installed as "Default Instance". It cannot be a "Named Instance".
2. SQL Server must be configured with mixed-mode authentication (that is, allows both SQL Server authentication and Windows authentication).
3. Create a database named ContentStore (database name must not contain space). ContentStore must be a separate database from the RequestCenter database or the Datamart database. However it is OK for the ContentStore database to reside on the same SQL Server instance as the RequestCenter database.
4. Ensure that the database collating sequence is case-insensitive.
5. Create a database user account called "CSUser", which is used by the Cognos application server to access the ContentStore database at runtime.

**Note**

CSUser must be a SQL Server login account that authenticates to the SQL Server using SQL Server authentication method, and not Windows authentication method.

6. Assign the database user account "CSUser" as the db_owner of the "ContentStore" database. Verify your setting to ensure that a) the user name "CSUser" in the ContentStore database is mapped to the login name "CSUser" in the SQL Server, b) the default schema is "dbo", and c) the user name "CSUser" has the "db_owner" database role membership.
-

Sizing the ContentStore Database

The size of the ContentStore database depends on a number of factors:

- Number of concurrent users
- Number of saved reports (plus number of pages/rows/images per report)
- Number of saved report views (plus number of pages/rows per report)
- Format of the reports (PDF, HTML, and so on)

The following guidelines, adapted from an article published in the Cognos Knowledge Base, may help you estimate database sizing requirement, based on usage estimates from the above parameters.

ContentStore sizing is a function of:

- System space: transaction logs; Cognos estimates 3,000,000 KB for a database with 250 active users.

- Temporary space: required to generate reports; estimate 100,000 KB per concurrent user.
- Data space: required to hold reports and views saved by users; user folders; and the Framework Manager models on which the reports are based.
- The total number of saved reports and views is a major factor in terms of ContentStore sizing, and the most difficult to predict. This can be partially controlled by Cognos Administrators limiting the number of versions of a report that can be saved by each user.
- The size of each saved report is based on the number of report pages. Factors that may influence the average size of a report include number of pages; formatting and text selection; and the inclusion of images. Cognos estimates that following requirements for saved objects which users may create.
- Cognos also estimates the number of each of these saved objects that a “typical” user is likely to maintain. Multiplying these numbers by the storage requirements for each object yields an estimate for volume- (user-)dependent storage requirements for data space within the ContentStore.

Object	Storage Requirements (Estimate)	# Per User
Saved Report, PDF format, 1–10 pages	340 KB	2
Saved Report, PDF format, 10–100 pages	440 KB	9
Saved View, 1–100 rows	250 KB	3
Saved View, 100–1000 rows	350 KB	8
Schedule (daily or weekly)	30 KB	2

- You need only multiply these requirements by the number of Cognos users to estimate this most volatile aspect of disk usage.

Installing Cognos Software

This section describes how to install the Cognos 8.4.1 Software.



Note

You must log in as a user with administrative privileges to perform the installation tasks described in this section.

Downloading Cognos Software

- Step 1** Access the Cisco product download web site and authenticate with the user name and password provided to you.
- Step 2** Search for the product name “Cisco Request Center Reporting”, or navigate within the product selector to locate the Cognos Business Intelligence installer and fixed packs. (Navigation: **Downloads Home > Products > Cloud and Systems Management > Service Catalog > Cisco Cloud Portal > Cisco Request Center Reporting**).
- Step 3** Choose **Business Intelligence Install** and download the following files under version 8.4.1 to your Cognos application server machine:

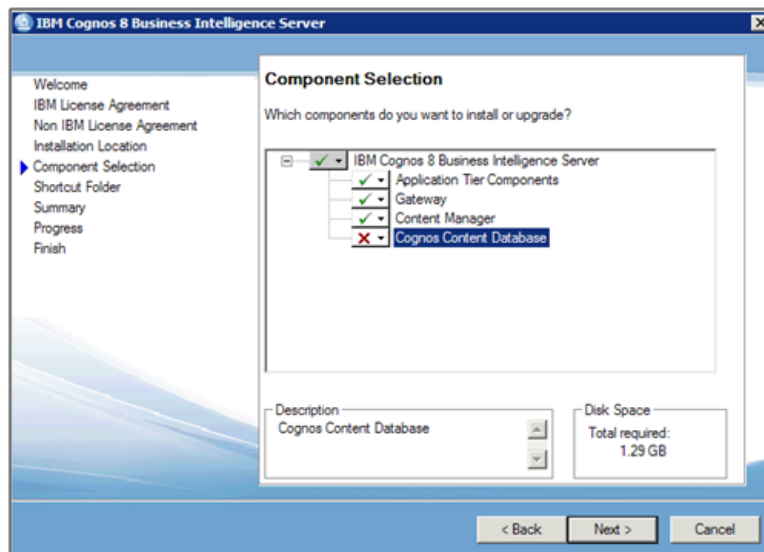
File to download	Description
CZA87ML.tar.gz	Cognos 8.4.1 Business Intelligence Server (64-bit)

CZAH6EN.tar.gz	Cognos 8.4.1 Data Manager (64-bit)
C8_BI_8_4_1_Win64_FP004.tar.gz	Fix Pack 4 for Cognos 8.4.1

- Step 4** Extract all three zip files in a temporary directory, such as C:\CognosSoftware, on the Cognos application server.
- Step 5** Delete the JAVA_HOME environment variable, if it exists on the Cognos machine. This is because Cognos installation program will use its embedded Java, which may conflict with the version of Java defined for JAVA_HOME environment variable.

Installing Cognos Business Intelligence Server

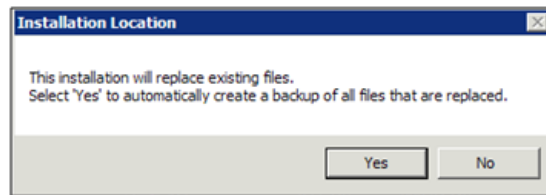
- Step 1** (Assuming that you extracted the Cognos software under the C:\CognosSoftware directory) Open the folder C:\CognosSoftware\CZA87ML\winx64.
- Step 2** Double-click **issetup.exe** to launch the Cognos Setup program.
- Step 3** Walk through the installation wizard by choosing all default values presented on the screen, until you get to the Component Selection screen.
- Step 4** Choose only the components as shown below with the green check marks:



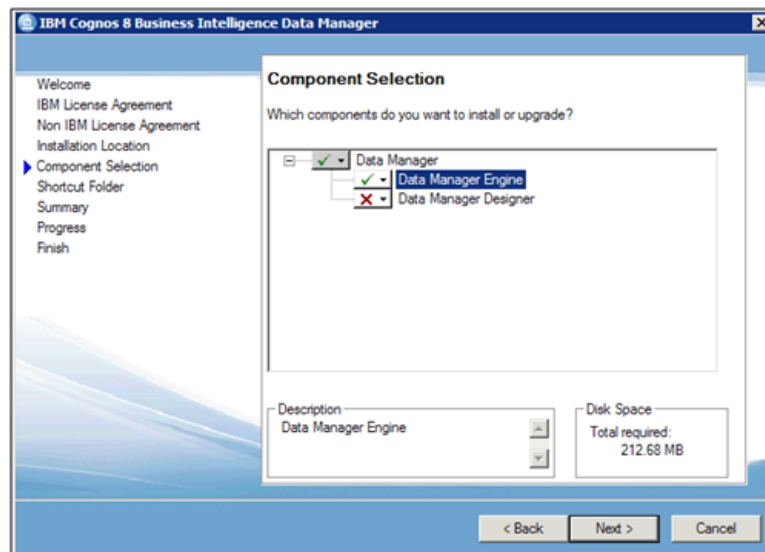
- Step 5** Click **Next** and proceed with the rest of the installation wizard, until you get to the Finish screen.
- Step 6** Uncheck the “Start IBM Cognos Configuration” option, and then click **Finish**.

Installing Cognos Data Manager

- Step 1** (Assuming that you extracted the Cognos software under the C:\CognosSoftware directory) Open the folder C:\CognosSoftware\CZAH6EN\winx64.
- Step 2** Double-click **issetup.exe** to launch the Cognos Setup program.
- Step 3** Walk through the installation wizard by choosing all default values presented on the screen, until you get to the Installation Location screen.
- Step 4** Enter the same folder name where you have installed the Cognos Business Intelligence Server (for example, C:\Program Files (x86)\cognos\c8_64). Then click **Next**.
- Step 5** If you see the message “Warning: You are installing to the same location as a previous installation. Do you want to continue?”, click **Yes** to proceed.
- Step 6** If the following message appears, click **No** to proceed:



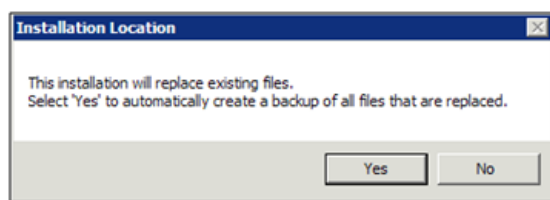
- Step 7** When the Component Selection screen appears, choose only the component as shown below with the green check mark:



- Step 8** Click **Next** and proceed with the rest of the installation wizard, until you get to the Finish screen.
- Step 9** Uncheck the “Start IBM Cognos Configuration” option, and then click **Finish**.

Installing Cognos Fix Pack 4

-
- Step 1** (Assuming that you extracted the Cognos software under the C:\CognosSoftware directory) Open the folder “C:\CognosSoftware\C8_BI_8_4_1_Win64_FP004\winx64”.
- Step 2** Double-click **issetup.exe** to launch the Cognos Setup program.
- Step 3** Walk through the installation wizard by choosing all default values presented on the screen, until you get to the Installation Location screen.
- Step 4** Enter the same folder name where you have installed the Cognos Business Intelligence Server (for example, C:\Program Files (x86)\cognos\c8_64). Then click **Next**.
- Step 5** If the following message appears, click **No** to proceed:



- Step 6** Click **Next** and proceed with the rest of the installation wizard, until you get to the Finish screen.
- Step 7** Click **Finish**.
-

Copying Oracle JDBC Driver

Perform the following step only for Oracle database:

-
- Step 1** Copy file **ojdbc5.jar** from the <ORACLE_HOME>\JDBC\lib directory to the <COGNOS_HOME>\webapps\p2pd\WEB-INF\lib directory on the Cognos application server.
- <ORACLE_HOME> is where you installed the Oracle Client 11.2.0.1 (32-bit) software.
- <COGNOS_HOME> is where you installed the Cognos Business Intelligence Server (for example, C:\Program Files (x86)\cognos\c8_64).
-

Installing Reporting

This section describes how to install and configure Cisco Prime Service Catalog Reporting.



Note

You must log in as a user with administrative privileges to perform the installation tasks described in this section.

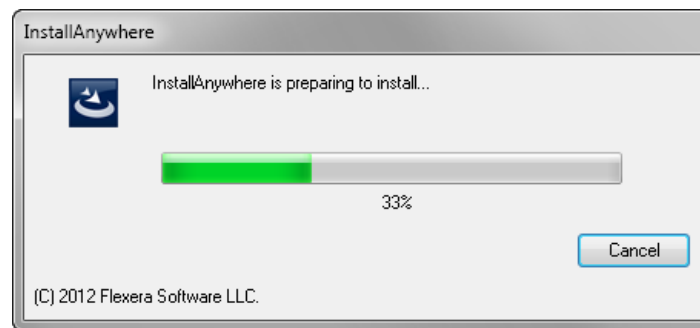
Executing Reporting Setup

Reporting is installed by running a setup program which installs and launches an installation wizard.

To execute the setup program:

-
- Step 1** On the Cognos machine, set the JAVA_HOME environment variable to <COGNOS_HOME>\bin64\jre\1.5.0. Then, add %JAVA_HOME%\bin to the PATH environment variable.
- Step 2** Extract the electronic software distribution file that you downloaded from the Cisco web site to your computer, if you have not already done so.
- Step 3** Double-click **reporting_setup.cmd** to install the installation wizard.
- A progress bar appears, as shown in [Figure 3-1](#) below.

Figure 3-1 Setup Progress Bar



When complete, the first page of the installation wizard appears (Introduction), as shown in [Figure 3-1](#) below.

How to Use the Installation Wizard

The installation wizard guides you through the reporting installation by presenting pages of fields to be configured. As each page is completed, click **Next** to advance to the next page, or **Previous** to return to a previous page. At the end of the wizard, click **Install** to begin the installation. At any time, you may click **Cancel** to exit the installation wizard without installing.

The installation configuration options are case-sensitive, so ensure that you enter a value, such as a database name or a JMS queue name, with case sensitivity; otherwise, your installation may fail.

Running the Reporting Installation Wizard

This section provides instructions for running the Reporting installation wizard.

-
- Step 1** Launch the installation wizard (see [“Executing Reporting Setup”](#) section on page 3-11).
- Step 2** On the first page of the installation wizard, click **Next** to begin.

- Step 3** On the Choose Install Folder panel, enter a destination folder for the installation and click **Next**.
The default destination folder is “C:\CiscoPrimeServiceCatalog”. If desired, enter a different destination folder, or click Choose to locate and select another folder (or create a new one). The path name for the destination folder must not contain any spaces. Throughout this document, this destination folder is referred to as <Reporting_Install_Dir >.
- Step 4** In the Database Selection panel, choose the database platform (Microsoft SQL Server or Oracle) and click **Next**.
Refer to your Database Information Worksheet (see Table 1-2 on page 1-14) that you filled out earlier to determine your database platform.
- Step 5** In the Request Center Database panel, enter your Request Center database configuration values. For more information on updating the values on the Request Center Database panel, see [Request Center Database Table for Reporting](#). Use your Database Information Worksheet (see Table 1-2 on page 1-14) that you filled out earlier to help you determine what configuration values to enter.

Table 3-1 Request Center Database Table for Reporting

Field	SQL Server	Oracle Server
Hostname	Enter the Hostname or IP address of the server where the Request Center database resides.	Enter the Hostname or IP address of the server where the Request Center database resides.
Port	Enter the TCP/IP Port Number used by your Database Server. Valid port numbers are from 1 to 65535. The default value is 1433	Enter the TCP/IP Port Number used by the Database Server. The default value is 1521.
Database Name	Enter the name of the RequestCenter database. By default, the value is “RequestCenter”. Enter only alphanumeric characters. Do not use any space characters.	Not Applicable
Database SID	Not Applicable	Enter the SID of the Oracle server where the RequestCenter database resides.
Username	Enter the database username. Enter only alphanumeric characters. Do not include any space characters. This username is the login ID and the db_owner of the "RequestCenter" database. The default value is "RCUser".	Enter the database username. Enter only alphanumeric characters. Do not include any space characters. This username is the login ID and schema name for the database schema. The default value is "RCUSER".
Password	Enter the password for the Database Username.	Enter the password for the Database Username.

- Step 6** Click **Next** to proceed to the next page of the wizard.

The installer performs a connection test to your Request Center database using the configuration values you entered and checks that the prerequisites for your database platform have been fulfilled.

If the database connection test fails, a "Database Test Connection Failed" dialog box message appears. If you get this message, click **OK** to close the dialog box, and make any necessary modifications to the information on the Request Center Database panel. If you want to abort the installation wizard at this point, click **Cancel**.

If the database connection test passes, the Datamart Database Creation panel appears.

Step 7 In the Datamart Database Creation panel:

- If you have already created your database, then select **No** here and click **Next** to continue. You will be prompted for the information of your existing database. Refer to the [Datamart Database Table for Reporting](#) to enter the database information.

For a new installation, you can prepare the database in advance as described in the Configuring Databases section of Chapter 2.

- If you have not created the database in advance, select **Yes** to let the installer create the database for you and click **Next**. You will be prompted for the connection information to your database server so that the installer can create the database on the fly. Enter the database information on the Datamart Database Creation panel and click **Create Datamart** button.

If the database creation is successful, the Datamart database successful message dialog will appear. Click **OK** to close the message dialog box. Refer to the [Datamart Database Table for Reporting](#) below to enter the database information.



Note

This "create database" feature will create a very basic Datamart database that meets the minimum requirements for the Service Catalog Reporting module to proceed. This feature is recommended for a Demo or Test system, but for a Production system, it is advisable that you work with your DBA to create the Datamart database in advance which meets all of the product requirements as described in the Configuring Databases section, as well as any performance, reliability and security requirements that adhere to your corporate policy.

- If you are performing an upgrade installation, then select **No** here and click **Next**. You will be prompted to enter the information of your existing Datamart database. Refer to the Datamart Database Table for Reporting to enter the database information. Refer to Chapter 4: Upgrade Guide for more detailed information.



Note

The fields in the Data Mart Database panel varies depending on whether you clicked **Yes** or **No** in the Data Mart Database Creation panel. Use the Datamart Database Table for Reporting accordingly.

Table 3-2 *Datamart Database Table for Reporting*

Field	SQL Server	Oracle Server
Hostname	Enter the Hostname or IP address of the Database Server.	Enter the Hostname or IP address of the Database Server.
Port	Enter the TCP/IP Port Number used by the Database Server. The default value is 1433.	Enter the TCP/IP Port Number used by the Database Server. The default value is 1521.

Field	SQL Server	Oracle Server
Database name	Enter the name of the database for the Data Mart. Enter only alphanumeric characters. Do not include any space characters. The default value is "Datamart"	Not Applicable
sa password	To create the database in SQL Server, the installer must connect to SQL Server as the "sa" user. Enter the password for the "sa" user here.	Not Applicable
sys password	Not Applicable	Enter the password for the "sys" user.
Database SID	Not Applicable	The SID of the Oracle server where the Datamart database resides.
Username	Enter the database username. Enter only alphanumeric characters. Do not include any space characters. This username will be the login ID and the db_owner of the "Datamart" database. The default value is "DMUser".	Enter the database username. Enter only alphanumeric characters. Do not include any space characters. This username will be the login ID and schema name for the database schema. The default value is "DMUSER".
Password	Enter the password for the Database Username.	Enter the password for the Database Username.
Confirm Password	Re enter the password for the Database Username.	Re enter the password for the Database Username.
User tablespace	Not Applicable	(Optional value) If you have a specific Oracle tablespace name, enter it here. The default tablespace for the shema will be set to this value. If you leave this value blank, then the installer will use whatever the default USER tablespace that the Oracle server provides.
Temp tablespace	Not Applicable	(Optional value) If you have a specific Oracle temp tablespace name, enter it here. The temp tablespace for the shema will be set to this value. If you leave this value blank, then the installer will use whatever the default TEMP tablespace that the Oracle server provides.

Step 8 In the DataMart Database panel, click the **Next** button to continue. The installer will connect to the database to validate the required settings for the database. If the installer created the database for you, then it would meet all of the required settings, and the validation test would pass. If you provided the information for an existing database, then the installer may report a validation error if it detects that

Choose ascertain required database setting is missing (refer to the Configuring Databases section in Chapter 2 for the database requirements.) If a database validation error occurs, the installer will not allow you to move on. You can do one of the following:

- a. Close the error dialog and click **Cancel** to exit the installation wizard, or
- b. Fix the missing database setting on a separate database connection session. Then come back to this screen, close the error dialog, and click **Next** again. At this point, the installer will repeat the validation test, and if the test passes, it will let you move to the next page.

If the database validation passes, the Content Store Database Creation panel appears.

Step 9 For a new installation, you can prepare the database in advance as described in the Cognos Database Server Requirements section of this Chapter.

- If you have already created your database, then select **No** and click **Next** to continue. You will be prompted for the information of your existing database.

Refer to the Content Store Database Table for Reporting below to enter the database information. Click **Next**.

- If you have not created the database in advance, you can select Yes and click Next to continue. You will be prompted for the connection information to your database server so that the installer can create the database on the fly.

Refer to the Content Store Database Table for Reporting below to enter the database information and click **Create Datamart**. If the database creation is successful, the Content Store Database successful message dialog will appear. Click **OK** to close the message dialog box



Note

The "create database" feature will create a very basic Content Store database that meets the minimum requirements for the Service Catalog Reporting module to proceed. This feature is recommended for a Demo or Test system, but for a Production system, it is advisable that you work with your DBA to create the ContentStore database in advance which meets all of the product requirements as described in the Cognos Database Server Requirements section, as well as any performance, reliability and security requirements that adhere to your corporate policy.

- If you are performing an upgrade installation, then select **No** and click **Next**. You will be prompted to enter the information of your existing ContentStore database. Refer to Chapter 4: Upgrade Guide for more detailed information.

Refer to the [Content Store Database Table for Reporting](#) below to enter the database information. Click **Next**.



Note

The fields in the Content Store Database panel varies depending on whether you clicked Yes or No in the Content Store Database Creation panel. Use the Content Store Database Table for Reporting accordingly.

Table 3-3 **Content Store Database Table for Reporting**

Field	SQL Server	Oracle Server
Hostname	Enter the Hostname or IP address of the Database Server.	Enter the Hostname or IP address of the Database Server.
Port	Enter the TCP/IP Port Number used by the Database Server. The default value is 1433.	Enter the TCP/IP Port Number used by the Database Server. The default value is 1521.
Database name	Enter the name of the database for the Content Store. Enter only alphanumeric characters. Do not include any space characters. The default value is "Content Store"	Not Applicable
sa password	To create the database in SQL Server, the installer must connect to SQL Server as the "sa" user. Enter the password for the "sa" user here.	Not Applicable
Database SID	Not Applicable	Enter the SID of the Oracle server.
Username	Enter the database username. Enter only alphanumeric characters. Do not include any space characters. This username will be the login ID and the db_owner of the "Requestcenter" database. The default value is "CSUser".	Enter the database username. Enter only alphanumeric characters. Do not include any space characters. This username will be the login ID and the db_owner of the "Requestcenter" database. The default value is "CSUser".
Password	Enter the password for the Database Username.	Enter the password for the Database Username.
Confirm Password	Re enter the password for the Database Username.	Re enter the password for the Database Username.
User tablespace	Not Applicable	(Optional value) If you have a specific Oracle tablespace name, enter it here. The default tablespace for the shema will be set to this value. If you leave this value blank, then the installer will use whatever the default USER tablespace that the Oracle server provides.
Temp tablespace	Not Applicable	(Optional value) If you have a specific Oracle temp tablespace name, enter it here. The temp tablespace for the shema will be set to this value. If you leave this value blank, then the installer will use whatever the default TEMP tablespace that the Oracle server provides.

Step 10 Click the **Next** button on the Content Store Database panel to continue. The installer will connect to the database to validate the required settings for the database. If the installer created the database for you, then it would meet all of the required settings, and the validation test would pass. If you provided the information for an existing database, then the installer may report a validation error if it detects that certain required database setting is missing. (Refer to the Configuring Databases section in Chapter 2 for the database requirements.) If a database validation error occurs, the installer will not allow you to move on. You can do one of the following:

- a. Close the error dialog and click **Cancel** to exit the installation wizard, or
- b. Fix the missing database setting on a separate database connection session. Then come back to this screen, close the error dialog, and click **Next** again. At this point, the installer will repeat the validation test, and if the test passes, it will let you move to the next page.

If the database validation passes, the Content Store Root Directory page appears.

Step 11 Enter the Cognos root directory for the installation. This is where you installed the Cognos 8.4.1 software. The default root directory is "C:\Program Files (x86)\cognos\c8_64". If needed, enter a different root directory, or click Browse to locate and choose the directory.

Step 12 Click **Next** to proceed. The Cognos Settings page appears.

Step 13 Enter the following information for Cognos server.

- **Cognos Server Name:** Enter the fully qualified domain hostname (not IP address) of the computer where the Cognos software is installed.
- **Configure IIS?:** Do not deselect this option. The installer will automatically configure the Cognos application on the IIS web server on this computer.

Step 14 Click the **Advanced Options** button. The Advanced Options dialog box appears.

Specify if you want to execute the database scripts as part of the installation by selecting the **Execute SQL Scripts** checkbox. This checkbox is selected by default.

You should deselect this setting only in exceptional circumstances such as:

- If a separate review of the scripts by internal personnel is required before they execute. In this case, you will need to step through this wizard again, this time selecting the checkbox, in order to execute the scripts and complete the installation.
- A previous installation attempt successfully executed these scripts but failed later during the installation process. In this case, you can save time during the installation process the second time through by deselecting the checkbox, since execution of the scripts takes some time and if they have already executed, there is no need to do so again.

Step 15 Click **Next** to proceed.

The Form Data Reporting panel appears.

Step 16 Enter your Form Data Reporting Tables settings as described in [Form Data Reporting Tables](#). Should you decide that you need to modify some of these settings after the installation, there is a utility for you to do so. See the "Modifying Form Data Reporting Configuration" section on page 5-7 for more information.

Table 3-4 *Form Data Reporting Tables*

Field	Definition
Dictionary table prefix	The prefix for the names of the Dictionary Tables. Default value is "DM_FDR_DICTIONARY_." It is recommended to go with this prefix. If you must change the prefix, use only alphabetic characters and the underscore character. Do not use any numeric or special characters.
Service table prefix	The prefix for the names of the Service Tables. Default value is "DM_FDR_SERVICE_." It is recommended to go with this prefix. If you must change the prefix, use only alphabetic characters and the underscore character. Do not use any numeric or special characters.
Table columns prefix	The prefix for the field names in each table. Default value is "FIELD." It is recommended to use the default value unless there is absolute necessity to change it. This name is used to create tables with field name like FIELD1, FIELD2, ..., FIELDn.
Text column max length	This parameter indicates the maximum size of dictionary and service table object varchar field size. The default value is 200.

Step 17 Click **Next** to proceed. The Form Data Reporting Dictionary Settings panel appears.

Step 18 Enter Form Data Reporting Dictionary Settings as described in [Form Data Reporting Dictionary Settings Table](#).

Table 3-5 *Form Data Reporting Dictionary Settings Table*

Field	Definition
Dictionary tables	Number of tables required in the Datamart database to store the data for reportable dictionaries. One table is needed per reportable dictionary. The default value is 50, which is also the minimum value allowed.
Text Fields	Number of Text type fields that are used in dictionaries based on the customer form reporting analysis. The default value is 40.
Numeric fields	Number of Numeric fields that are used in dictionaries based on the customer form reporting analysis. The default value is 10.
Date fields	Number of Date fields that are used in dictionaries based on the customer form reporting analysis. The default value is 10

Step 19 Click **Next** to proceed. The Form Data Reporting Service Settings page appears.

Step 20 Enter your Form Data Reporting Service Settings as described in [Form Data Reporting Service Settings Table](#).

Table 3-6 *Form Data Reporting Service Settings Table*

Field	Definition
Service tables	Number of tables required in the Datamart database to store the data for reportable dictionaries. One table is needed per reportable dictionary. The default value is 50, which is also the minimum value allowed.
Text Fields	Number of Text type fields that are used in dictionaries based on the customer form reporting analysis. The default value is 80.
Numeric fields	Number of Numeric fields that are used in dictionaries based on the customer form reporting analysis. The default value is 20.
Date fields	Number of Date fields that are used in dictionaries based on the customer form reporting analysis. The default value is 20.

Step 21 Click **Next**. The SMTP Settings panel appears.

Step 22 Enter your SMTP settings as described in [SMTP Settings Table](#).

Table 3-7 *SMTP Settings Table*

Field	Definition
Service tables	Number of tables required in the Datamart database to store the data for reportable dictionaries. One table is needed per reportable dictionary. The default value is 50, which is also the minimum value allowed.
Text Fields	Number of Text type fields that are used in dictionaries based on the customer form reporting analysis. The default value is 80.
Numeric fields	Number of Numeric fields that are used in dictionaries based on the customer form reporting analysis. The default value is 20.
Date fields	Number of Date fields that are used in dictionaries based on the customer form reporting analysis. The default value is 20.

Step 23 (Optional) Click the "**Test SMTP**" button to verify the connection to the SMTP server. If the test connection fails, the installer will still let you move on to the next page.

Step 24 Click **Next** to proceed. The Pre-Installation Summary panel appears.

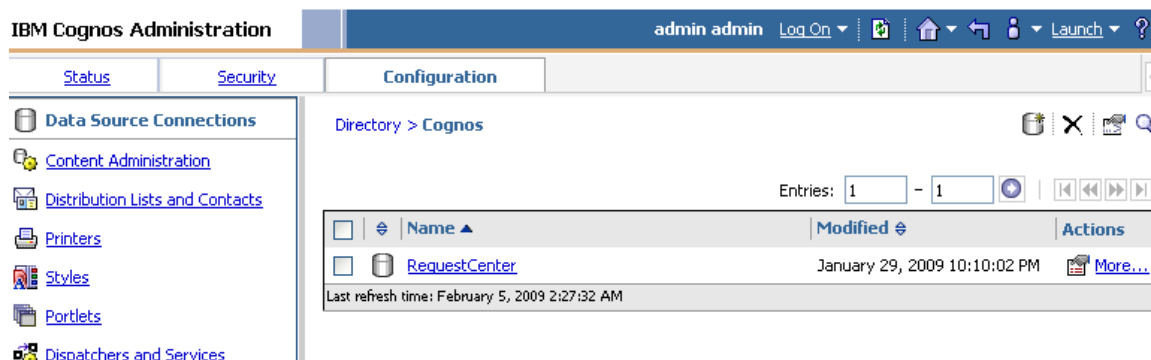
The installation wizard has enough information to start the installation process. Review the settings that appear on this panel. If you need to make any changes, click Previous to go back to a particular panel and make the necessary changes. If they are correct, click Install to begin the installation of Reporting.

The installation process may take up to 20 minutes to complete. Do not interrupt the installation wizard during this process. If the installation process completes successfully, the Install Complete panel of the installation wizard appears.

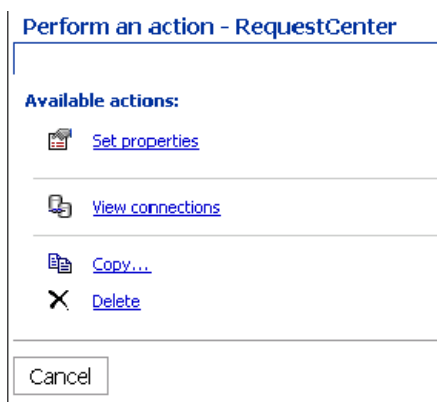
Step 25 Click **Done** to exit the installation wizard.

Executing create_datasource.cmd

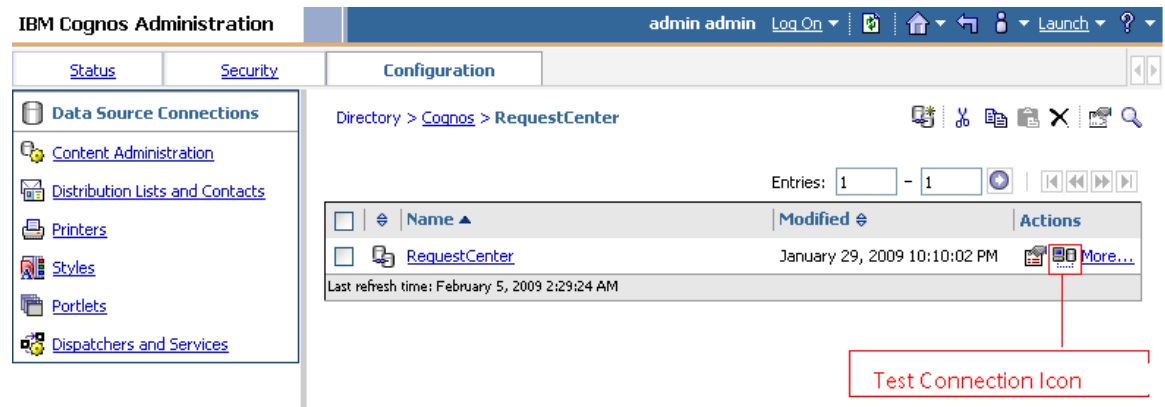
- Step 1** Open a Command Prompt window, and navigate to the `<Reporting_Install_Dir>\cognos\bin` directory.
- Step 2** Execute `create_datasource.cmd`.
- Step 3** After `create_datasource.cmd` completes successfully, open a browser on the Cognos machine, and connect to the URL **`http://localhost/cognos8`**.
- Step 4** Enter the User ID and Password of the Service Catalog administrative user, then click **OK** to log in.
- Step 5** In the UI, click the **My home** link.
- Step 6** In the top right corner of the UI, click the **Launch** link, and click the **IBM Cognos Administration** drop-down menu.
- Step 7** Click the **Configuration** tab.
- Step 8** In the left pane, click the **Data Source Connections** link.
- Step 9** In the right pane, you should see a data source entry called **RequestCenter**.



- Step 10** Under the Actions column, click the **More** link. The “Perform an Action – RequestCenter” page appears.



- Step 11** Click **View connections**.
- Step 12** The Configuration tab reappears, and a new *(Test the connection)* icon shows up next to the **More** link.



- Step 13** Click this (*Test the connection*) icon.
- Step 14** Click **Test**.
- Step 15** Verify that the connection test shows the Status of “Succeeded”. You can now proceed to the next section.

Importing Service Catalog Reports

Perform the following tasks to configure and import the Service Catalog Standard Reports Archive to the Cognos environment.

- Step 1** Open a Command Prompt window and navigate to the `<Reporting_Install_Dir>\cognos\bin` directory.
- Step 2** Execute `import_reports.cmd`.
- Step 3** Execute `update_datamart_std.cmd`.

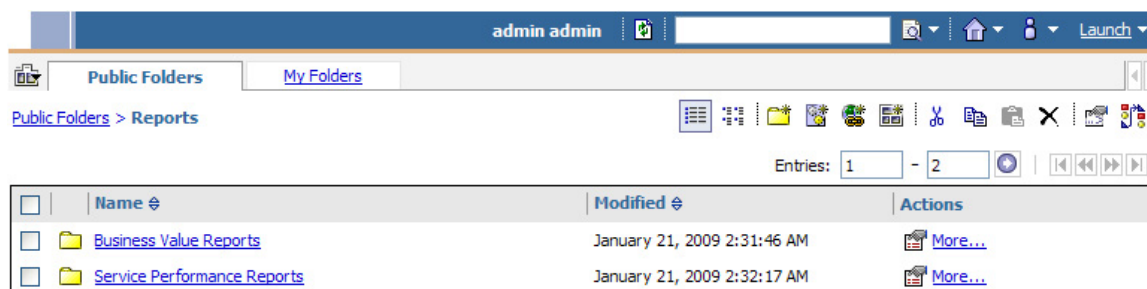


Note This script may take several minutes to complete.

Restart the Service Catalog Application

- Step 1** **Restart the Service Catalog application.** This will allow the Service Catalog application server to pick up the new configuration which enables it to integrate with the Cognos application server. Restart the entire application server where the Request Center application is running.
- Step 2** Once the application server is started, log in as the Service Catalog Site administrative user.
- Step 3** Choose the **Reporting** module.
- Step 4** Click the **Reports** tab.

- Step 5** Verify that the Public Folders tab appears with two folders named “Business Value Reports” and “Service Performance Reports”. This is a good indication that the Reporting module of Service Catalog is integrated successfully with the Cognos application server.



- Step 6** Proceed to the next section “Configuring Advanced Reporting”.

Configuring Advanced Reporting

Execute the following scripts to set up the Advanced Reporting components. If you do not want Advanced Reporting, skip to the “Postinstallation Tasks” section on page 3-23.

- Step 1** On the Cognos machine, open a Command Prompt window, and navigate to the `<Reporting_Install_Dir>\cognos\bin` directory.

- Step 2** Execute `update_datamart.cmd`.



Note This script may take several minutes to complete.

- Step 3** Execute `create_model.cmd`.

- Step 4** Execute `publish_fdr_pkg.cmd`.



Note This script may take several minutes to complete.

- Step 5** Execute `publish_serviceportfolioreporting_pkg.cmd`.



Note This script may take several minutes to complete.

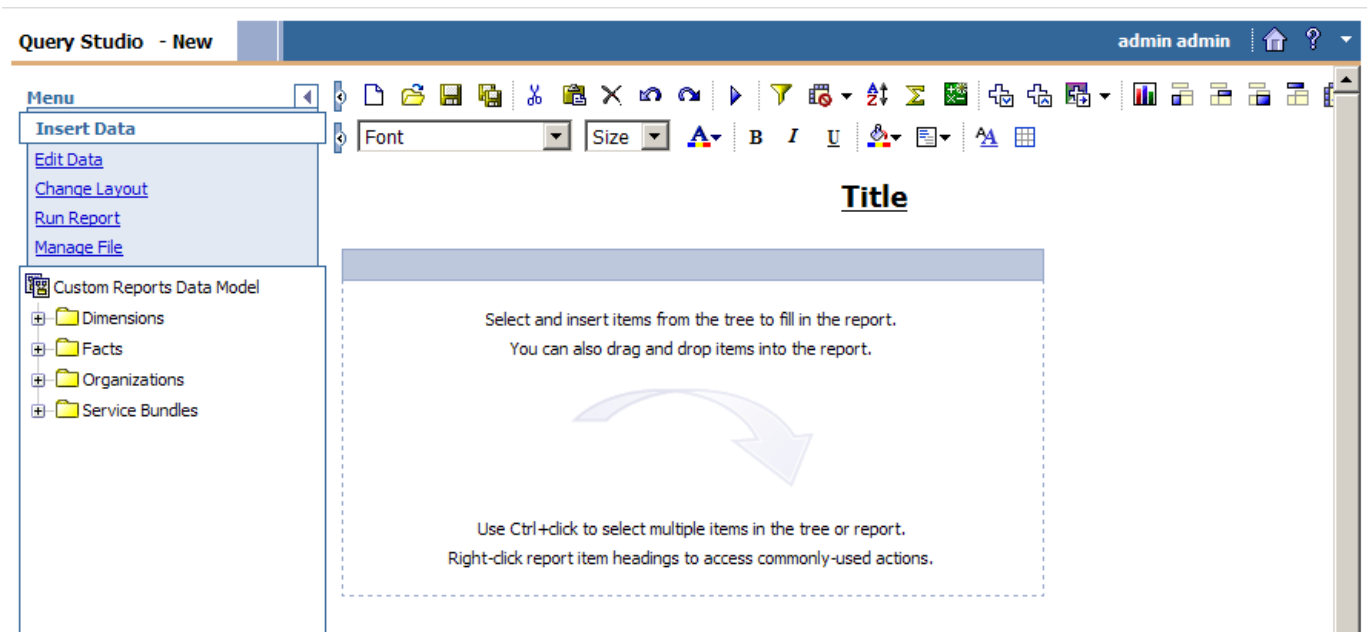
- Step 6** Log out, and then log back in to Service Catalog as the administrative user.

- Step 7** Choose the **Advanced Reporting** module.

- Step 8** Click the **Ad-Hoc Reports** tab.

- Step 9** Click the **Custom Report Data Models** link.

- Step 10** If you see the Query Studio window (similar to the image below), then it is a good indication that the Advanced Reporting module of Service Catalog is integrated successfully with the Cognos application server.



Postinstallation Tasks

The postinstallation tasks consist of scheduling the ETL processes to be run. The amount of time each process takes to complete is proportional to the amount of data in the RequestCenter database which must be extracted and transmitted to the Datamart database.

Postinstallation Tasks for Reporting

Set up the following script as scheduled tasks on the Cognos machine. All scripts reside in the `<Reporting_Install_Dir>\cognos\bin` directory.

Standard Report Script	Description
update_datamart_std.cmd	This script extracts the data from the RequestCenter database and transmits it to the Datamart database. This data is used to refresh the Service Catalog Standard Reports. This script can be scheduled to run however often you want Standard Reports to be refreshed. Normally, this script can be scheduled to run once a day, at off-peak hours.

Postinstallation Tasks for Advanced Reporting

If you have Advanced Reporting, then you must also perform the tasks described in this section.

- Step 1** On the Cognos machine, set up the following scripts as scheduled tasks. All scripts reside in the `<Reporting_Install_Dir>\cognos\bin` directory.

Advanced Report Scripts	Description
update_datamart.cmd	This script updates fact tables and dimensions in the Datamart database.
create_model.cmd	This script creates the framework model used by the Cognos reporting tools (Query Studio and Report Studio).
publish_fdr_pkg.cmd	This script publishes the Cognos framework for the Request Center module of Service Catalog.
publish_serviceportfolioreporting_pkg.cmd	This script publishes the Cognos framework for the Demand Center module of Service Catalog.

**Note**

We recommend scheduling the advanced report scripts in the table above to run once daily during off-peak hours. The data in the Datamart database is available during this time, however performance may be adversely affected.

Allow 40 minutes per 10,000 new or changed requisitions between update_datamart.cmd and create_model.cmd. Allow 30 minutes per 10,000 new or changed requisitions between create_model.cmd and publish_fdr_pkg.cmd. The publish_serviceportfolioreporting_pkg script can be scheduled to run at the same time or a few minutes after the publish_fdr_pkg.cmd script.

Except for publish_serviceportfolioreporting_pkg, the other scripts must be run without overlapping. If the scripts overlap, you may encounter data inconsistency.

Configuring the Time Zone

The Cisco Prime Service Catalog Reporting installer automatically sets the time zone of the Cognos server to match the time zone of the Service Catalog application. The following table shows the supported time zones for the Service Catalog application. The installer will map the Service Catalog time zone to an equivalent Cognos time zone value (that is, same GMT offset).

Time Zone Name	Computer Time Zone Description (GMT)
Etc/GMT+12	(GMT-12:00) International Date Line West
Pacific/Apia	(GMT-11:00) Samoa
US/Hawaii	(GMT-10:00) Hawaii
US/Aleutian	(GMT-10:00) Hawaii Aleutian Daylight Time
US/Alaska	(GMT-09:00) Alaska
America/Tijuana	(GMT-08:00) Pacific Time (US and Canada); Tijuana
America/Chihuahua	(GMT-07:00) Chihuahua, La Paz, Mazatlan
US/Arizona	(GMT-07:00) Arizona
Canada/Mountain	(GMT-07:00) Mountain Time (US and Canada)
Canada/Saskatchewan	(GMT-06:00) Saskatchewan

Time Zone Name	Computer Time Zone Description (GMT)
US/Central	(GMT-06:00) Central America
Canada/Central	(GMT-06:00) Central Time (US and Canada)
America/Mexico_City	(GMT-06:00) Guadalajara, Mexico City, Monterrey
America/Bogota	(GMT-05:00) Bogota, Lima, Quito
Canada/Eastern	(GMT-05:00) Eastern Daylight Time (US and Canada)
America/Jamaica	(GMT-05:00) Eastern Time (US and Canada)
US/East-Indiana	(GMT-05:00) Indiana (East)
America/Antigua	(GMT-04:00) Atlantic Time (Canada)
Canada/Atlantic	(GMT-04:00) Atlantic Daylight Time (Canada)
America/Manaus	(GMT-04:00) Manaus
America/Santiago	(GMT-04:00) Santiago
America/Caracas	(GMT-04:30) Caracas
America/La_Paz	(GMT-04:00) La Paz (Bolivia)
America/Sao_Paulo	(GMT-03:00) Brasilia
America/Godthab	(GMT-03:00) Greenland
America/Argentina/Buenos_Aires	(GMT-03:00) Buenos Aires
America/Guyana	(GMT-04:00) Georgetown
America/St_Johns	(GMT-03:30) Newfoundland and Labrador
Atlantic/South_Georgia	(GMT-02:00) Mid-Atlantic
Atlantic/Azores	(GMT-01:00) Azores
Atlantic/Cape_Verde	(GMT-01:00) Cape Verde Islands
Etc/Greenwich	(GMT) Greenwich Mean Time: Dublin, Edinburgh,
Africa/Casablanca	(GMT) Casablanca, Monrovia
Europe/Sarajevo	(GMT+01:00) Sarajevo, Skopje, Warsaw, Zagreb
Europe/Brussels	(GMT+01:00) Brussels, Copenhagen, Madrid, Paris
Africa/Brazzaville	(GMT+01:00) West Central Africa
Europe/Amsterdam	(GMT+01:00) Amsterdam, Berlin, Bern, Rome,
Europe/Belgrade	(GMT+01:00) Belgrade, Bratislava, Budapest,
Africa/Cairo	(GMT+02:00) Cairo
Europe/Helsinki	(GMT+02:00) Helsinki, Kiev, Riga, Sofia, Tallinn,
Europe/Minsk	(GMT+02:00) Minsk
Europe/Athens	(GMT+02:00) Athens, Bucharest, Istanbul
Asia/Jerusalem	(GMT+02:00) Jerusalem
Africa/Windhoek	(GMT+02:00) Windhoek
Africa/Harare	(GMT+02:00) Harare, Pretoria
Asia/Baghdad	(GMT+03:00) Baghdad
Africa/Nairobi	(GMT+03:00) Nairobi
Europe/Moscow	(GMT+03:00) Moscow, St. Petersburg, Volgograd
Asia/Kuwait	(GMT+03:00) Kuwait, Riyadh
Asia/Tehran	(GMT+03:30) Tehran
Asia/Baku	(GMT+04:00) Baku

Time Zone Name	Computer Time Zone Description (GMT)
Asia/Muscat	(GMT+04:00) Abu Dhabi, Muscat
Asia/Yerevan	(GMT+04:00) Yerevan
Asia/Tbilisi	(GMT+04:00) Tbilisi
Asia/Kabul	(GMT+04:30) Kabul
Asia/Karachi	(GMT+05:00) Islamabad, Karachi, Tashkent
Asia/Yekaterinburg	(GMT+05:00) Ekaterinburg
Asia/Kolkata	(GMT+05:30) Chennai, Kolkata, Mumbai, New Delhi
Asia/Kathmandu	(GMT+05:45) Kathmandu
Asia/Dhaka	(GMT+06:00) Astana, Dhaka
Asia/Novosibirsk	(GMT+07:00) Novosibirsk
Asia/Colombo	(GMT+05:30) Sri Jayawardenepura
Asia/Rangoon	(GMT+06:30) Yangon (Rangoon)
Asia/Bangkok	(GMT+07:00) Bangkok, Hanoi, Jakarta
Asia/Krasnoyarsk	(GMT+08:00) Krasnoyarsk
Asia/Irkutsk	(GMT+09:00) Irkutsk
Asia/Kuala_Lumpur	(GMT+08:00) Kuala Lumpur, Singapore
Asia/Taipei	(GMT+08:00) Taipei
Australia/Perth	(GMT+08:00) Perth
Asia/Chongqing	(GMT+08:00) Beijing, Chongqing, Hong Kong SAR,
Asia/Seoul	(GMT+09:00) Seoul
Asia/Tokyo	(GMT+09:00) Osaka, Sapporo, Tokyo
Asia/Yakutsk	(GMT+09:00) Yakutsk
Australia/Darwin	(GMT+09:30) Darwin
Australia/Adelaide	(GMT+09:30) Adelaide
Australia/Hobart	(GMT+10:00) Hobart
Australia/Canberra	(GMT+10:00) Canberra, Melbourne, Sydney
Australia/Brisbane	(GMT+10:00) Brisbane
Asia/Vladivostok	(GMT+10:00) Vladivostok
Pacific/Guam	(GMT+10:00) Guam, Port Moresby
Pacific/Guadalcanal	(GMT+11:00) Solomon Islands, New Caledonia
Pacific/Auckland	(GMT+12:00) Auckland, Wellington
Pacific/Fiji	(GMT+12:00) Fiji Islands
Pacific/Tongatapu	(GMT+13:00) Nuku'alofa

**Note**

The Europe/Moscow, Pacific/Fiji, Pacific/Apia, Asia/Yakutsk, and Asia/Vladivostok Time Zones currently do not support Daylight Saving Time. Thus, if you have to use one of these Time Zone Names, then either use one of the other Time Zone Names that has the same GMT offset, or consult with the Cisco Technical Assistance Center (TAC).



CHAPTER 4

Upgrade Guide

- [Overview, page 4-1](#)
- [Upgrading Service Catalog, page 4-1](#)
- [Upgrading Reporting, page 4-15](#)

Overview

This chapter describes how to perform an application upgrade from Cisco Prime Service Catalog Release 2008.3 or above to Release 9.4.1 R2

Audience

This chapter is for technical administrators possessing the following skills:

- Advanced RDBMS knowledge and expertise
- Familiarity with the customized areas of your environment

Upgrading Service Catalog

Overview

Release Upgrade Path

This upgrade process supports direct database component upgrade from Service Catalog Release 2008.3 SP9 or above to Release 9.4.1 R2. To bring the database schema to the supported upgrade level, the database installer program for the most recently available service pack, as listed in [Table 4-1](#) below, has to be executed against the database.

Table 4-1 *Direct Upgrade Paths*

From Release Version	To Release Version
2008.3 SP9	9.4.1 R2
9.1 SP3	9.4.1 R2
9.2 (limited release)	9.4.1 R2
9.3 GA	9.4.1 R2
9.3 R2	9.4.1R2
9.3.1	9.4.1R2
9.3.2	9.4.1R2
9.4	9.4.1R2

If your existing installation is prior to 2008.3 SP9, you must first upgrade it to a supported version. In some cases, you may need to perform multiple back-to-back database component upgrades.

Table 4-2 *Multistep Upgrade Paths*

From Release Version	Step 1 – Upgrade to Release Version	Step 2 – Upgrade to Release Version	Step 3 – Upgrade to Release Version
2006.0.7, 2006.0.8, 2006.0.9	2008.3	2008.3 SP9	9.4.1R2
2007.1 with any SP	2008.3	2008.3 SP9	9.4.1R2
2008.1 with any SP	2008.3	2008.3 SP9	9.4.1R2
2008.3 with any SP prior to SP9	2008.3 SP9	9.4.1R2	—
9.1 with any SP prior to SP3	9.1 SP3	9.4.1R2	—

Limitations and Notes

The following section includes product limitation notifications or important notes that should be considered when upgrading to this version.

New Platform Support

JBoss 7.1.1 is now a supported platform for the Cisco Prime Service Catalog, replacing JBoss 4.2.3. Also JBoss application server and IIS plugin are no longer bundled with the product software.

Catalog Deployer is now supported on Internet Explorer 8 only.

See [Chapter 1, “Platform Support Matrix”](#) for more information.

Service Import/Export Not Backwards Compatible

Service Import/Export is not backwards compatible to previous releases. Services exported in prior releases cannot be imported to this release. Please be sure to export any services you maintain in a code repository after the upgrade is complete.

Catalog Deployer Packages Not Backwards Compatible

Due to the change in the XML format in Catalog Deployer in Release 9.4.1 R2, packages in “Deployed” or “Received for Deployment” status are no longer usable. The content also may not render. For this reason, all packages pending deployment should be processed before upgrading to Release 9.4.1R2.

What is Upgraded

The upgrade process outlined in this chapter upgrades Service Catalog software as well as the Request Center database to support new capabilities provided in Service Catalog. These capabilities include more stringent control over data and referential integrity, ensuring enhanced data quality of the Service Catalog database.

What is Not Upgraded

The upgrade process identifies all objects in the existing database that are not recognized as part of the application schema.

- Unrecognized objects are automatically removed from the database, if they interact with any Service Catalog tables. For examples, the following objects (if they exist) will be dropped:
 - An unrecognized index on a Service Catalog table.
 - An unrecognized trigger on a Service Catalog table.
 - An unrecognized constraint on a Service Catalog table.
 - An unrecognized foreign key constraint that points to a Service Catalog table.
- All other types of unrecognized objects that do not interact with Service Catalog tables will only be reported and not dropped. For examples, the following objects (if they exist) are left alone: tables, columns, sequences, stored procedures, functions, and indexes that do not reference Service Catalog tables, constraints that do not affect Service Catalog tables.

Assumptions and Best Practices

- You must create and validate database backups and file system backups before upgrading. This is critical because you can rollback an upgrade only by restoring your databases and file system manually; no rollback function is built into the upgrade program.
- The production site will be down during the upgrade process, so you should schedule the upgrade for maintenance periods.
- You are upgrading from 2008.3 SP9 or later. See the [“Release Upgrade Path” section on page 4-1](#).

Prerequisites

- A sandbox environment for upgrade.
- Database backups and a well-rehearsed restore process.
- A complete list of all customizations (custom style sheets, JavaScript libraries, LDAP java mapping code, and so on.)

- All databases should meet the requirements as stated in the [“Configuring Databases” section on page 2-9](#).


High-Level Upgrade Methodology

Your organization most likely has already developed an upgrade methodology for Service Catalog solutions or has best practices for other enterprise software upgrades. The methodology described in this guide is useful to either follow as an alternate or to augment your established practices for specific new upgrade requirements.

We recommend that you create a sandbox environment where you rehearse a dry run of the upgrade procedures for your existing Service Catalog system. Take notes of any technical issues and resolutions that may arise along the way. This will help you prepare for the actual upgrade of your production system. This dry run exercise will also provide you with an overall timeline of the upgrade process from beginning to end, which can help you plan the appropriate system downtime needed to complete the upgrade of your production system.

Once you can successfully upgrade the system in your sandbox environment and feel comfortable with the process, you can schedule the upgrade of your production system, and repeat the same process by following the instructions in this guide, in conjunction with the technical notes that you prepared during the dry run exercise.

At a high level, the upgrade procedures are as follows:

-
- | | |
|---------------|--|
| Step 1 | Back up the current production databases and restore them onto another set of databases. |
|---------------|--|
-
- | | |
|---|---|
|  | <p>Note Since SQL Server 2005 database and Oracle 10g database are no longer supported in this release, you must restore your database backups onto a brand new SQL Server 2008 R2 database or an Oracle 11g database.</p> |
|---|---|
-
- | | |
|---------------|---|
| Step 2 | Create a sandbox environment that has all the prerequisites for Release 9.4.1 R2. This is the environment where you will be executing the upgrade program from the Release 9.4.1 R2 package and needs to be configured to connect to the copy of production databases. |
| Step 3 | Run the Service Catalog installation wizard as described in the “Running the Service Catalog Installer” section on page 2-52 . On the Service Catalog Database page, enter the values for the copy of the production database. |
| Step 4 | Click Next . |
| Step 5 | Click Upgrade Existing Database . |
| Step 6 | Click Validate Schema . |
| Step 7 | Click View Errors . If any schema errors in your database are reported, work with your database administrator and application programmer to fix the schema errors. Some schema errors may come with a <i>suggested</i> SQL command to fix the error, which you can discuss with your DBA and application programmer to see if it is applicable for your error condition. Others may require that you consult with the Cisco Technical Assistance Center (TAC) to come up with an appropriate fix. Document all of the validation errors and resolutions you encounter. |
| Step 8 | Click Validate Schema iteratively after each time you fix the validation errors, until there are no more errors reported. |
| Step 9 | Click Validate Data . |

- Step 10** Click **View Errors**. If any data errors in your database are reported, work with your database administrator and application programmer to fix the errors in the data. There are two types of data errors—Validation Errors and Auto-Repairable Errors. Some validation errors may come with a *suggested* SQL command to fix the error, which you can discuss with your DBA and application programmer to see if it is applicable for your error condition. Others may require that you consult with the Cisco Technical Assistance Center (TAC) to come up with an appropriate fix. Document all of the validation errors and resolutions you encounter.
- Step 11** Click **Validate Data** iteratively after each time you fix the validation errors, until no Validation Errors are reported. It is OK to have some Auto-Repairable Errors. They will be programmatically fixed in the next step.
- Step 12** Click **Repair Database**. This function will programmatically fix all Auto-Repairable Errors reported in the previous step.
- Step 13** When the repair database function completes, click **Next** to complete the remaining pages of the Service Catalog installation wizard.
- Step 14** After the installation wizard completes the upgrade installation, reapply any necessary customizations on your sandbox environment.
- Step 15** Perform user acceptance testing for the upgraded system in the sandbox environment.
- Step 16** Gather all of the technical notes that you have created along the way.
- Step 17** At this point, if you feel that you are still not comfortable with the upgrade process, you may want to clean up your sandbox environment, and repeat all steps one more time in the sandbox environment. This time, follow the instructions in this guide, in conjunction with the technical notes that you have documented so far.
- Step 18** When you are ready, repeat the entire upgrade process on your production environment.
-

Upgrading to Service Catalog Release 9.4.1R2

Overview

Several platforms have been desupported since Release 9.3.1. Therefore, review [Table 4-2 on page 4-2](#) to find out whether you need to upgrade the versions of the application server, web server, or operating system, prior to upgrading Cisco Prime Service Catalog.

If the platform that your existing Service Catalog is running on is no longer supported, you need to prepare a new environment for one of the newly supported platforms, as described in [Chapter 2, “Cisco Prime Service Catalog Installation and Configuration Guide”](#).

For example, your Service Catalog system is running on WebLogic 10.3 on Windows Server 2003 operating system. WebLogic 10.3 is still supported for Release 9.4.1 R2 of Service Catalog. However, because Windows Server 2003 is no longer supported, you will need to install WebLogic 10.3 on a brand new computer that has Windows Server 2008 R2 operating system.

For another example, your Service Catalog is running on WebSphere 6.1 on AIX 5.3 operating system. Since both WebSphere 6.1 and AIX 5.3 are not supported in this Release 9.4.1 R2 of Service Catalog, you may have to prepare another computer that has WebSphere 7.0 on AIX 7.1 operating system.

Upgrading Service Catalog involves:

- Performing preupgrade tasks while the current version of the application is up and running

- Preparing a sandbox environment that meets the newly supported platforms and prerequisites for the Service Catalog Release 9.4.1 R2 installation
- Running the Service Catalog installation wizard and selecting Upgrade Existing Database.
- Validating the integrity of preupgrade database, and repairing any schema or data issues found
- Performing postupgrade tasks

Upgrading Service Catalog consists of the following nine sections:

- [I. Performing Preupgrade Tasks, page 4-6](#)
- [II. Preparing the Upgrade Environment, page 4-7](#)
- [III. Run the Installation Wizard to the Validation Page, page 4-8](#)
- [iV Understanding Validations, page 4-9](#)
- [V. Validating Schema, page 4-12](#)
- [VI. Validating Data, page 4-13](#)
- [VII. Repairing the Database, page 4-13](#)
- [VIII. Completing Installation, page 4-13](#)
- [IX. Performing Postupgrade Tasks, page 4-14](#)

I. Performing Preupgrade Tasks

Perform the following mandatory preupgrade tasks on your production environment.

-
- | | |
|---------------|--|
| Step 1 | If you do not have the Advanced Reporting module, proceed to Step 2. Otherwise, you need to perform several preupgrade tasks for the Advanced Reporting module, as described in the “Performing Preupgrade Tasks for Reporting” section on page 4-15. Perform only the preupgrade steps for the Advanced Reporting module, then return to this section, and complete the rest of the procedures outlined here. |
| Step 2 | If there are application server version changes, the unprocessed messages residing in the JMS queues for Service Link will not be migrated automatically to the new application servers. Prior to upgrade, you should check that there are no unprocessed messages in the queues and resolve any that may be present. Once the queues are clear, stop all Service Link agents, so that you have a chance to verify Service Link communication before any agent is restarted after upgrade. |
| Step 3 | Catalog Deployer does not support deploying packages between different release levels of Service Catalog. Therefore, prior to upgrade, ensure that you have deployed all assembled packages that are ready for deployment. Otherwise, you will not be able to deploy them after your database is upgraded to Release 9.4.1R2. Furthermore, as you approach the time for the upgrade, for any new package that you assemble in your current system, you might want to include the release version of Service Catalog in the description. This will make it easier for you to identify different release versions of packages. |
| Step 4 | An optional activity that may be included in the preupgrade checklist is to review the list of deployed packages. You may want to export and delete the packages that no longer need to be maintained online. Since these packages can no longer be deployed (once the upgrade has taken place), keeping them online is useful only for querying deployment history. By deleting these packages, you recover space in the database. Such clean-up activities can be conducted in all systems (development, test/QA, and production). |
| Step 5 | Stop all Service Catalog services on the application server. |

- Step 6** Back up all Service Catalog databases. Make sure that you back up all Service Catalog-related databases if you have more than one. For example, in addition to the RequestCenter database, you may have a separate Datamart database or ContentStore database (which is used by Cognos). If so, you need to back up all databases.
- Step 7** Back up all customization scripts or files. The upgrade process will not preserve any customizations on your existing installation. Therefore, after the upgrade, you may need to reapply some or all of these customizations on your system if they are still applicable.
- Step 8** Back up the installation directory. Back up the directory where you originally installed the Service Catalog software.
- Step 9** Proceed to the [II. Preparing the Upgrade Environment](#) section below.
-

II. Preparing the Upgrade Environment

Skip this section if you are ready to perform the upgrade on your production environment.

In this section, you will be creating a sandbox environment which you will use to perform the dry run exercise for the upgrade process. Once you are comfortable with the upgrade process and are armed with the technical notes that you have collected during the dry run exercise, you can then begin the upgrade procedures on the actual production system.

To prepare a sandbox environment:

-
- Step 1** Restore the production database backups onto another set of databases.



Note

Since SQL Server 2005 database and Oracle 10g database are no longer supported in this release, you must restore your database backups onto a brand new SQL Server 2008 R2 database or an Oracle 11g database.

- Step 2** If you are using Oracle DBMS, it is recommended that you execute recompile the statistics for each database after it is restored. This step is essential for enhancing the performance of upgrade processes on large databases.
- Step 3** If your database is SQL Server, you must activate the READ_COMMITTED_SNAPSHOT by performing the following:
- Connect to your SQL Server as the “sa” user, and set the SQL Server in single-user mode.
 - Execute the following commands. Replace <database_name> with the name of your RequestCenter database.

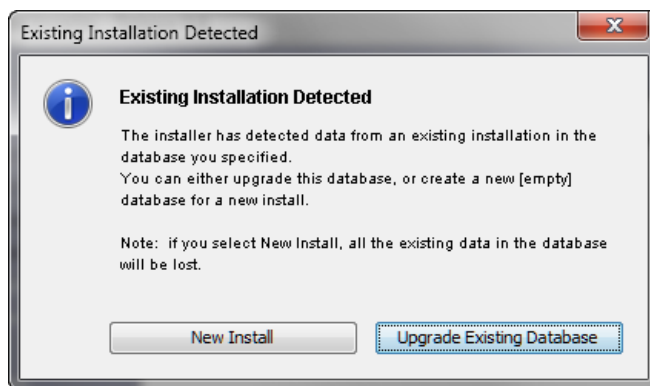

```
ALTER DATABASE <database_name> SET READ_COMMITTED_SNAPSHOT ON
GO
ALTER DATABASE <database_name> SET COMPATIBILITY_LEVEL=100
GO
```
 - Put the SQL Server back in multiuser mode.

- Step 4** Review the list of supported platforms and the prerequisite information for Release 9.4.1 as described in [Chapter 1, “Platform Support Matrix”](#) and [Chapter 2, “Cisco Prime Service Catalog Installation and Configuration Guide”](#). If your platform is no longer supported, then make sure that for the sandbox environment, install the correct versions of application server, web server and JDK on a supported operating system.
- Step 5** Proceed to the [III. Run the Installation Wizard to the Validation Page](#) section below.
- Step 6** Review also the "Create Datasources" section in the Installation and Configuration guide to ensure all the database requirements are met.
-

III. Run the Installation Wizard to the Validation Page

- Step 1** Run the Service Catalog installation wizard as described in the [“Running the Service Catalog Installer” section on page 2-52](#). Choose a **Typical** or **Custom** installation type and follow the corresponding scenario ([Scenario 1: New Typical Installation, page 2-54](#), or [Scenario 2: New Custom Installation, page 2-57](#)).
- Step 2** On the Request Center Database panel of the installation wizard, enter the values for the database.
- Step 3** Click **Next** to proceed to the next page of the wizard.
- The Existing Installation Detected dialog box appears, as shown in [Figure 4-1](#) below.

Figure 4-1 Existing Installation Detected



- Step 4** Click **Upgrade Existing Database**.
- The Validation page of the installation wizard appears..

The Service Catalog installation wizard will not allow you to upgrade an existing database until it has been successfully validated and repaired. The Validation page is designed so that the functions are executed in sequential order:

1. Validate Schema
2. Validate Data
3. Repair Database

You cannot execute Validate Data without having executed Validate Schema at least once. You cannot execute Repair Database without having executed Validate Data at least once.

You can execute each function multiple times. However, each time that you execute Validate Schema, the program reinitializes as if you start the validation process from the beginning. For example, let's say you have just completed Validate Data. You can proceed with Repair Database. But, instead you choose to execute Validate Schema again. Because you execute Validate Schema, the system is reinitialized, and thus after you complete Validate Schema, you cannot jump to Repair Database. You must execute Validate Data next.

Step 5 Proceed to the [iV Understanding Validations](#) section below.

iV Understanding Validations

Skip this section and proceed to the [“V. Validating Schema” section on page 4-12](#) section if you are already familiar with the database validation process during the Cisco Prime Service Catalog upgrade. You can always come back to review this section when the Validate Schema and Validate Data steps return any error.

The functions on the Validation page verify the integrity of your existing schema and database. The results for all validation scripts are stored in a table called SchValidationLog in the database. See the [“SchValidationLog Table” section on page 4-11](#) for instructions to view this log file. All possible validation entry ErrorLevels and their descriptions are shown in [Table 4-3](#) below.

Table 4-3 Validation ErrorLevels

ErrorLevel	Description
inform	<p>The validation test results in an anomaly that is deemed harmless for the upgrade process, as well as for the application. For example, the validation detects a table that does not belong to the database schema. The existence of this table will not cause the upgrade to fail, nor will it have any ill effect on the application.</p> <p>These unrecognized objects that do not interact with Service Catalog tables are flagged with a status of “inform” in the SchValidationLog table. The following objects (if they exist) are reported only: tables, columns, sequences, stored procedures, functions, indexes and constraints that do not interact with Service Catalog tables. These objects are reported only, and are left alone.</p> <p>All validation entries with ErrorLevel= “inform” will be ignored.</p> <p>No action is required on your part to address these entries.</p>
inform: auto-repairable	<p>The data validation test results in a data error that is deemed to be harmful. However, this type of error can be safely and programmatically fixed by the Repair Database function.</p> <p>Most errors of this type are the result of internal inconsistencies, possibly introduced by previous upgrades or import utilities, and the repair typically consists of restoring referential or data integrity.</p> <p>The RepairScript column in the SchValidationLog table shows the SQL statement that is used to repair the error.</p> <p>No action is required on your part.</p>
inform: auto-repaired	<p>The Repair Database function executes the sql statement documented in the RepairScript column to fix the error that was reported as “inform: auto-repairable” above.</p> <p>All validation entries with ErrorLevel= “inform:auto-repaired” are shown in the SchValidationLog table, and in the Validation Errors table when you click View Errors for the Repair Database function.</p> <p>No action is required on your part.</p>

Table 4-3 **Validation ErrorLevels (continued)**

ErrorLevel	Description
inform: pending-repair	<p>The validation test results in an anomaly that is deemed to be harmful to the upgrade process, but one that will be programmatically repaired during the upgrade process.</p> <p>Missing or modified objects are flagged with a status of “inform: pending-repair” in the SchValidationLog table. An example of this type of anomaly is a missing index or a missing primary key constraint. The missing index or primary key constraint will be created correctly, if it does not exist.</p> <p>No action is required on your part.</p>
inform: pending-removal	<p>The validation test detected an unrecognized database object that touches a Service Catalog table. The existence of this object may prevent the upgrade from completing successfully. These unrecognized objects are flagged with a status of “inform: pending-repair” in the SchValidationLog table.</p> <p>For example, the following objects (if they exist) are flagged for removal: a) an unrecognized index on a Service Catalog table, b) an unrecognized trigger on a Service Catalog table, c) an unrecognized constraint on a Service Catalog table, and d) an unrecognized foreign key constraint that points to a Service Catalog table. These objects are automatically deleted.</p> <p>No action is required on your part.</p>
error	<p>A validation test has resulted in a hard “error” that cannot be fixed programmatically. Usually, this type of error is related to a bad data relationship, such as missing row, or duplicate entries.</p> <p>All validation entries with ErrorLevel= “error” are shown in the SchValidationLog table, and in the Validation Errors table, when you click View Errors for the Validate Schema or Validate Data function.</p> <p>The TestType column indicates the type of error, and the TestDetail column contains the SQL statement that was used for the validation test. This SQL statement should provide you with some hints regarding the error. This error would cause the upgrade to fail; thus, when such an error is detected, it must be fixed before proceeding with the upgrade.</p> <p>The application administrator or database administrator must manually fix all errors of this type, and then run the same Validate function again until it reports no more errors.</p> <p>Contact the Cisco Technical Assistance Center (TAC) if you need assistance on how to fix validation errors. In some cases, the RepairScript column may contain a <i>suggested</i> SQL statement that can be used to fix the error. Consult with your application administrator or DBA to ensure that such a repair script is applicable for your specific situation.</p> <p>Document clearly how each validation error is fixed. You will need your notes when you have to repeat the upgrade procedures on another environment.</p>

As described in [Table 4-3](#) above, only validation entries with ErrorLevel= “error”, as shown in the Validation Errors table when you click View Errors for the Validate Schema or Validate Data function, must be manually fixed. All other validation errors, reported in the SchValidationLog table, are automatically handled.

After you manually fix all validation entries with ErrorLevel= “error”, click the same Validate function again to verify that no more errors are reported. It is possible that as a result of your manual fixes, new validation errors may appear. If this happens, you have to repeat the Validate function again, and fix the validation errors, iteratively.

We recommend that you review and address validation errors by doing so iteratively first for all schema validation errors, and then for all data validation errors. This methodology reduces the chance of regression errors you may encounter by mixing schema validation error fixes with data validation error fixes.

SchValidationLog Table

The results for all validation scripts, regardless of whether validation errors were found or not, are stored in a table called SchValidationLog in the database.

To view the SchValidationLog table:

- Step 1** Connect to your database as the schema owner (that is, RCUser), and browse the table SchValidationLog to view the validation results. You can use a utility like SQL Analyzer (Figure 4-2) or SQL*Plus to connect to your database.

Figure 4-2 Browse SchValidationLog Table

SchFunctions	dbo	User	11/5/2007 5:28:25 PM
SchIndColumns	dbo	User	11/5/2007 5:28:25 PM
SchIndexes	dbo	User	11/5/2007 5:28:25 PM
SchObjectActionLog	dbo	User	11/5/2007 5:28:25 PM
SchObjectExceptions	dbo	User	11/5/2007 5:28:25 PM
SchPackages	dbo	User	11/5/2007 5:28:25 PM
SchPrimaryKeys	dbo	User	11/5/2007 5:28:25 PM
SchProcedures	dbo	User	11/5/2007 5:28:25 PM
SchSequences	dbo	User	11/5/2007 5:28:25 PM
SchTabColumns	dbo	User	11/5/2007 5:28:25 PM
SchTables	dbo	User	11/5/2007 5:28:25 PM
SchTriggers	dbo	User	11/5/2007 5:28:25 PM
SchValidationLog	dbo	User	11/5/2007 5:28:25 PM
SchValidationRunAttributes	dbo	User	11/5/2007 5:28:25 PM
SchViewColumns	dbo	User	11/5/2007 5:28:25 PM
SchViews	dbo	User	11/5/2007 5:28:25 PM

- Step 2** Open the SchValidationLog table to view its contents (Figure 4-3).

Figure 4-3 SchValidationLog Contents

RunType	TestType	ObjectType	ObjectName	ObjectShortName	ErrorLevel	TestDetail
Check Schema	Table column ty...	Column	DirProject.Perce...	DirProject.Perce...	inform	Expected type: ...
Check Schema	Table column siz...	Column	DirPerson.SSN	DirPerson.SSN	inform	Expected type: ...
Check Schema	Unexpected tabl...	Table	CUSTOMER_TAB...	CUSTOMER_TAB...	inform	NULL
Check Schema	Unexpected tabl...	Table	CUSTOMER_TAB...	CUSTOMER_TAB...	inform	NULL
Check Schema	Unexpected tabl...	Table Column	DirPermission.C...	DirPermission.C...	inform	NULL
Check Schema	Unexpected tabl...	Table Column	DirPerson.CUST...	DirPerson.CUST...	inform	NULL
Check Schema	Unexpected FK ...	FK	FK_CUSTOMER_...	Table name: CU...	pending removal	NULL
Check Schema	Expected index ...	Index	TxInvocationAtt...	TxInvocationAtt...	inform:pending-r...	NULL
Check Schema	Expected index ...	Index	TxObjectRelatio...	TxObjectRelation3	inform:pending-r...	NULL
Check Schema	Expected index ...	Index	TxSatisfaction.T...	TxSatisfaction1	inform:pending-r...	NULL
Check Schema	Expected index ...	Index	XtrAgent.XtrAge...	XtrAgent3	inform:pending-r...	NULL

- Step 3** Check the ErrorLevel column in the SchValidationLog table for the following values and take the recommended actions.
- Step 4** Your SchValidationLog table may contain a lot of entries. Thus, you may want to use the following SQL command to filter the contents:

```
SELECT * FROM SchValidationLog WHERE ErrorLevel= "error"
AND RunType= "Check Data";
```

Include the WHERE clause “ErrorLevel= ‘error’” if you just want to see the validation errors that you must fix manually before you can proceed with the upgrade process. Exclude that WHERE clause, or change the value “error” to another value (such as “inform: auto-repairable”; see [Table 4-3](#) for more information) if you want to view other entries in the SchValidationLog table.

Notes about the RunType column in the SchValidationLog table:

- Validate Schema inserts entries with RunType= “Check Schema”.
- Validate Data inserts entries with RunType= “Check Data”.
- Repair Database updates all entries with ErrorLevel= “inform: auto-repairable” to ErrorLevel= “inform: auto-repaired”, and at the same type, changes the RunType to “Fix Data”.

V. Validating Schema

Step 1 Click **Validate Schema**.

If the schema validation test completes without validation errors, a “Completed” message appears.

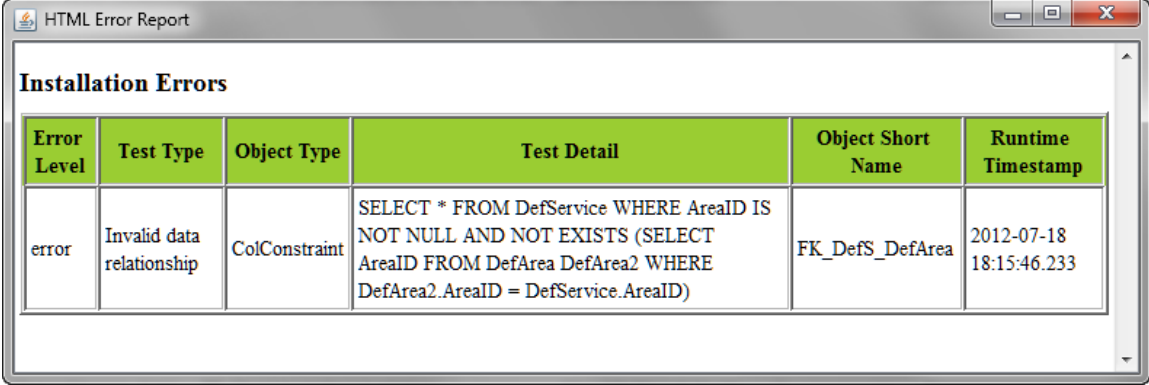
If no errors are reported, proceed to the [“VI. Validating Data” section on page 4-13](#).

If the schema validation test completes with validation errors, a “Completed with errors” message appears, C

Step 2 Click **View Errors**.

The Validation Errors window appears. Resize the window to see the complete table, as shown in the example below ([Figure 4-4](#)).

Figure 4-4 Validation Errors (Validate Schema)



The screenshot shows a window titled "HTML Error Report" containing a table of installation errors. The table has six columns: Error Level, Test Type, Object Type, Test Detail, Object Short Name, and Runtime Timestamp. One error is listed with an error level of "error", test type of "Invalid data relationship", object type of "ColConstraint", and a test detail involving a SQL query about DefService and DefArea tables.

Error Level	Test Type	Object Type	Test Detail	Object Short Name	Runtime Timestamp
error	Invalid data relationship	ColConstraint	SELECT * FROM DefService WHERE AreaID IS NOT NULL AND NOT EXISTS (SELECT AreaID FROM DefArea DefArea2 WHERE DefArea2.AreaID = DefService.AreaID)	FK_DefS_DefArea	2012-07-18 18:15:46.233

Step 3 You need to manually fix the errors shown in the Validation Errors table before continuing the upgrade process. See the [“iV Understanding Validations” section on page 4-9](#) for more information.

Step 4 When all validation errors have been fixed iteratively, proceed to the [VI. Validating Data](#) section below.

VI. Validating Data

Step 1 Click **Validate Data**.

If the data validation test completes without validation errors, a “Completed” message appears.

If no errors are reported, proceed to the [“VII. Repairing the Database”](#) section on page 4-13.

If the data validation encounters validation errors, then a “Completed with errors” message appears.

Step 2 Click **View Errors**.

The Validation Errors window appears.

Step 3 You need to manually fix the errors shown in the Validation Errors table before continuing the upgrade process. See the [“iV Understanding Validations”](#) section on page 4-9 for more information.**Step 4** When all validation errors have been fixed iteratively, proceed to the [VII. Repairing the Database](#) section below.

VII. Repairing the Database

Step 1 Click **Repair Database**.

When the database has been repaired a “Completed” message appears,

Step 2 (Optional) Click **View Errors**.

The Validation Errors window appears. Resize the window to see the complete table.

Note that the Validation Errors are only with ErrorLevel= “inform:auto-repaired” that are fixed programmatically by the Repair Database function.

Step 3 Proceed to the [VIII. Completing Installation](#) section below.

VIII. Completing Installation

You have validated and repaired your database, and are now ready to proceed with the upgrade.

Step 1 Click **Next** to proceed to the next page of the Service Catalog installation wizard.**Step 2** Continue to run the installation wizard as described in the [“Running the Service Catalog Installer”](#) section on page 2-52 and your chosen scenario ([Scenario 1: New Typical Installation](#), page 2-54, or [Scenario 2: New Custom Installation](#), page 2-57).

When you click **Install** on the Pre-Installation Summary page of the installation wizard, the installer proceeds to execute the upgrade scripts to modify your database schema and contents. Depending on the size of your database, the upgrade scripts may take a long time to run. After the upgrade scripts modify the database schema and contents, the installer proceeds to create the WAR files. Follow the same procedures described in [Chapter 2, “Cisco Prime Service Catalog Installation and Configuration Guide”](#) to deploy the WAR files for the Service Catalog product.

- Step 3** Once you finish the deployment of the WAR files, and are able to start up the application servers, you have essentially completed the upgrade process. Your Service Catalog application is now at Release 9.4.1. At this time, if you wish, you can make a backup of the databases and the installation directory. If you are using Oracle DBMS, it is recommended that you again execute recompile statistics for the upgraded databases in order to improve the system runtime performance.

IX. Performing Postupgrade Tasks

- Step 1** Where necessary, recreate custom database objects that were deleted from the database by the installer.
- Step 2** Any custom code must be compatible with the new version of the JDK:
- Service Link custom adapters must be replaced with Release 9.4.1 R2 versions.
 - Custom adapters and any custom Java code developed at the customer site must be rebuilt using the new JDK.
 - Any enterprise portal into which Request Center Portlets are deployed must be at JDK version 1.6.
- Step 3** Service Import/Export is not backward compatible with previous releases. Services exported in prior releases cannot be imported into Release 9.4.1 R2. If you have maintained any Services export files in a code repository prior to upgrade, then you may want to export them again, and mark them for Release 9.4.1 R2.
- Step 4** Follow procedures your organization has used in the past to reimplement all customizations for the application.
- Step 5** If you use custom email templates for the Demand Center Agreement Notifications feature that was made available since Release 2008.1, you need to identify the corresponding email templates and set the template type to “DemandCenter” in the Administration module.

Figure 4-5 Configuring Email Templates

The screenshot displays the 'Email Templates' configuration page in the Service Catalog Administration module. The interface is divided into two main sections: 'Email Templates' on the left and 'General' on the right.

Email Templates Section:


- At the top, there are two tabs: 'RequestCenter' and 'DemandCenter'. The 'DemandCenter' tab is currently selected.
- Below the tabs is a table with a single column labeled 'Name'. It contains two entries: 'PD Agreement Approval' (highlighted in orange) and 'PD Agreement Creation'.

General Section:

- Name:** PD Agreement Approval
- From:** #Agreement.PerformerEmail#
- Type:** Two radio buttons are present: 'RequestCenter' (unselected) and 'DemandCenter' (selected, indicated by a green dot and a mouse cursor).
- Subject:** Forecasts
- To(s):** #Agreement.PerformerEmail#
- Language:** US English

- Step 6** Connect to the Service Catalog application as an administrative user. Navigate to the “Administration” module, and click the **Settings** tab. Under Customizations Settings, look for “Browser Cache” (as shown in Figure 4-6).

Figure 4-6 Enable Browser Cache Setting

Browser Cache:	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled	The Browser Cache setting enables the browser-side caching of images, javascripts, css, etc., which may improve performance. When the Version setting value is incremented, the login process is interrupted until the browser's cache is deleted. Default is Disabled.
Version:	2 	
<input type="button" value="Update"/>		

Click the **Enabled** radio button for the “Browser Cache” setting. Click the **+** button located to the right of the Version text box. This will increment the Version number by one. Then click **Update**. This setting will notify the users to clear their browser cache when they connect to the Service Catalog URL for the first time after the Service Catalog system is upgraded.

The next section describes the procedures for upgrading the Cognos component of the Advanced Reporting module. If your preupgrade Service Catalog system included the Advanced Reporting module, then you must continue with the next section to complete the upgrade process for the Cognos component so that the Advanced Reporting module will work for Release 9.4.1 R2.

Upgrading Reporting

Performing Preupgrade Tasks for Reporting

Backing Up Data Mart and Content Store Artifacts

To back up the Data Mart and Content Store artifacts:

-
- Step 1** Back up the Datamart database (If there are any custom Datamart tables, they can be referred from this backup) and the ContentStore database.
 - Step 2** Back up all custom-defined views that are used by Advanced Reporting from the RequestCenter database.
-



Note

The database backups are for safety purposes and the RequestCenter_windows.ctg and Report Data Model folder backups are for reference when you are reapplying any customizations you created in earlier releases.

Uninstalling Cognos 8.4. Components

If you are currently running Cognos 8.4, follow the steps below to uninstall all Cognos 8.4 components:

-
- Step 1** From your system Start button, choose **Programs > IBM Cognos8 > Uninstall IBM Cognos8**.
 - Step 2** Choose the display language and click **Next**.

- Step 3** Choose all the components from the package list, and proceed with the rest of the installation wizard until you get to the Finish screen.
 - Step 4** Reboot the system once all the components have been uninstalled successfully.
-

Installing Cognos 8.4.1

See the [“Installing Cognos Software” section on page 3-7](#) for more details on how to install Cognos 8.4.1.

Running the Reporting Installer for Upgrade

- Step 1** Run the Reporting installation wizard as described in the [“Installing Reporting” section on page 3-10](#).
- Step 2** After entering values for your Data Mart Database, click **Next** to proceed to the next page of the wizard. The Existing Installation Detected dialog box appears,
- Step 3** Click **Upgrade Existing Database**.
- Step 4** Continue with the Reporting installation wizard as described in the [“Running the Reporting Installation Wizard” section on page 3-11](#). You cannot edit the settings in the Form Data Reporting Tables, Form Data Reporting Dictionary Settings, and Form Data Reporting Service Settings pages. On these pages, just click **Next** to continue. Should you decide that you need to modify some of these settings after the upgrade, there is a utility for you to do so. See the [“Modifying Form Data Reporting Configuration” section on page 5-7](#) for more information.

Performing Postupgrade Tasks for Advanced Reporting

Perform the tasks described in the [“Postinstallation Tasks” section on page 3-23](#).



CHAPTER 5

Advanced Configuration and Troubleshooting Tips for Cognos

- [Overview, page 5-1](#)
- [Miscellaneous Configuration, page 5-1](#)
- [Understanding Roles, page 5-3](#)
- [Moving Reports from Development to Production Environments, page 5-5](#)
- [Modifying Form Data Reporting Configuration, page 5-7](#)
- [Configuring HTTPS for Cognos, page 5-14](#)
- [Troubleshooting, page 5-19](#)

Overview

This chapter contains troubleshooting tips and optional configuration instructions for Cognos.

Miscellaneous Configuration

Configuring Client Browsers to View a Report as Excel

Some users may report an issue with attempting to view a report in Excel format. The Excel screen pops up briefly and then disappears. To address this issue, add the Cognos Server URL to the Local Intranet zone of the client browser:

-
- | | |
|---------------|---|
| Step 1 | Open the client browser window. |
| Step 2 | Choose Tools > Internet Options . |
| Step 3 | Click Security . |
| Step 4 | Choose the Local Intranet zone. |
| Step 5 | Click Sites . |
| Step 6 | Click Advanced . |
| Step 7 | Enter the Cognos Server URL. |

**Note**

To determine the Cognos server URL, try one of the View as Excel features in the Reporting module and look for the URL that appears in the title bar of the window that appears briefly before closing itself. This is the URL you need to enter. You may want to load a screen capture application and snap the screen if it disappears too quickly to read in real time.

Step 8 Click **Add**.

Configuring Cognos Memory Usage

You configure Cognos memory usage by modifying the heap size for Cognos. To modify the heap size for the Cognos server:

Step 1 Stop the IBM Cognos 8 service.

Step 2 Open the **startup.bat** located under the C:\Program Files (x86)\cognos\c8_64\bin64 directory.

Step 3 In the startup.bat file, you can see different heap size settings recommended by Cognos, based on the RAM size of your Cognos machine:

rem “for machines with 1GB RAM”

```
set CATALINA_OPTS=-Xmx768m -XX:MaxNewSize=384m -XX:NewSize=192m  
-XX:MaxPermSize=128m %DEBUG_OPTS%
```

rem “for machines with 2GB RAM”

```
rem set CATALINA_OPTS=-Xmx1152m -XX:MaxNewSize=576m -XX:NewSize=288m  
-XX:MaxPermSize=128m %DEBUG_OPTS%
```

rem “for machines with 3GB RAM”

```
rem set CATALINA_OPTS=-Xmx1536m -XX:MaxNewSize=768m -XX:NewSize=384m  
-XX:MaxPermSize=128m %DEBUG_OPTS%
```

Based on your system RAM size, you can use any one the above heap size settings or modify the heap size settings, and comment the rest of the heap size settings by prefixing the line with **rem**.

Step 4 Restart the IBM Cognos 8 service.

Setting the Timeout Interval on IBM Cognos 8 Server

The IBM Cognos 8 session timeout setting should match that of Service Catalog to allow Single Sign-On to work seamlessly.

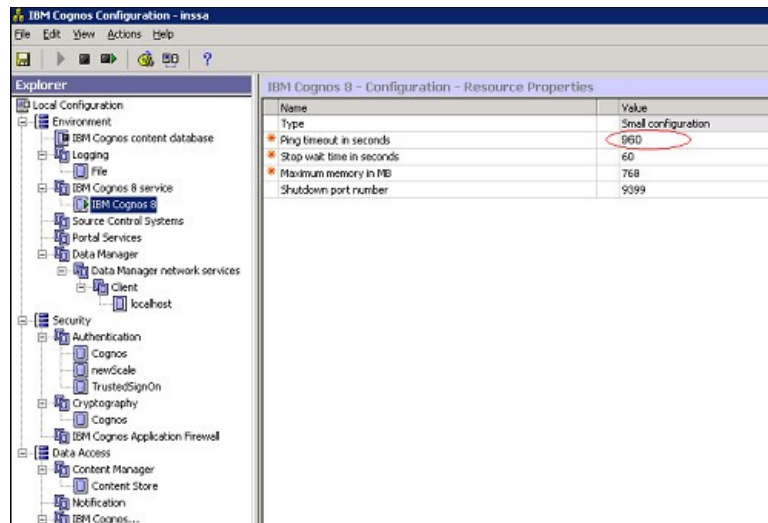
To set the timeout interval:

Step 1 Choose **Start > All Programs > IBM Cognos 8 - 64 > IBM Cognos Configuration**.

Step 2 Choose **Environment > IBM Cognos 8 service**.

Step 3 Click **IBM Cognos 8**.

- Step 4** Under Resource Properties, choose **Ping timeout in seconds**. Enter **960** as the timeout interval in seconds. 960 is the maximum possible value.



- Step 5** Save the configuration (by clicking the **Save** icon).

- Step 6** Restart the IBM Cognos 8 service.

Understanding Roles

Roles for Accessing Reporting Features

The roles listed in the table below are defined in the Organization Designer module, and should be assigned to users who need to access the Reporting and Advanced Reporting modules.

If you assign a user to the predefined role “**Service Operations Report User**”, the user should be able to run the prebuilt Request Center reports.

Table Legend

DC = Demand Center

RC = Request Center

Role	Capabilities	Description
Service Operations Report User	<ul style="list-style-type: none"> View RC Reports 	Module: Reporting <ul style="list-style-type: none"> Ability to view the KPI dashboard and run RC (Service Performance) reports

Understanding Roles

Service Strategy and Design Report user	<ul style="list-style-type: none"> View DC Reports 	Module: Reporting <ul style="list-style-type: none"> Ability to view the KPI dashboard and run DC (Business Value) reports
Advanced Reporting – BusinessAuthor	<ul style="list-style-type: none"> View RC Reports View DC Reports Ad-Hoc Reports 	Modules: Reporting and Advanced Reporting <ul style="list-style-type: none"> Access to the Ad-Hoc Reports tab in the Advanced Reporting module
Advanced Reporting – ProfessionalAuthor	<ul style="list-style-type: none"> View RC Reports View DC Reports Ad-Hoc Reports Report Designer 	Modules: Reporting and Advanced Reporting <ul style="list-style-type: none"> Ability to view the KPI dashboard (DC /RC) Access to the Ad-Hoc Reports tab in the Advanced Reporting module Access to Report Designer
Reporting Administrator	<ul style="list-style-type: none"> View RC Reports View DC Reports 	Modules: Reporting and Advanced Reporting <ul style="list-style-type: none"> Access to Reports in the Advanced Reporting module
Relationship Manager	<ul style="list-style-type: none"> View RC Reports View DC Reports 	Module: Reporting <ul style="list-style-type: none"> Access to all reports (DC /RC)
Service Level Manager	<ul style="list-style-type: none"> View RC Reports View DC Reports 	Module: Reporting <ul style="list-style-type: none"> Access to all reports (DC /RC)
Service Team Manager	<ul style="list-style-type: none"> View RC Reports 	Module: Reporting <ul style="list-style-type: none"> Ability to view the KPI dashboard and run RC (Service Performance) reports
Service Team Administrator	<ul style="list-style-type: none"> View RC Reports 	Module: Reporting <ul style="list-style-type: none"> Ability to view the KPI dashboard and run RC (Service Performance) reports
Portfolio Designer and Administrator	<ul style="list-style-type: none"> View DC Reports 	Module: Reporting <ul style="list-style-type: none"> Ability to view the KPI dashboard and run DC (Business Value) reports
Portfolio Manager	<ul style="list-style-type: none"> View DC Reports 	Module: Reporting <ul style="list-style-type: none"> Ability to view the KPI dashboard and run DC (Business Value) reports
Analytics Administrator	<ul style="list-style-type: none"> View RC Reports View DC Reports Ad-Hoc Reports Report Designer KPI Administrator Report Administrator 	Modules: Reporting and Advanced Reporting <ul style="list-style-type: none"> Access to the reports (DC /RC) Ability to view the KPI dashboard (DC /RC) Access to Ad-Hoc Reports tab in the Advanced Reporting module Access to Report Designer Access to manage Reporting folders, dashboard, administration of Cognos, schedule reports, save reports and permissions administration, create reports Access to the KPI Administration function
Site Administrator	All	Modules: Reporting and Advanced Reporting <ul style="list-style-type: none"> All Service Catalog and Cognos capabilities

Moving Reports from Development to Production Environments

This section describes how to move Report Designer reports and Ad-Hoc queries that you create in a development environment to a production environment.

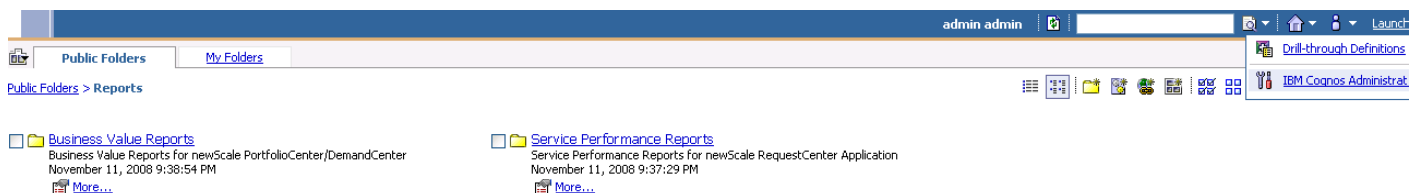
Prerequisites

You must be a user with the ability to administer the Reporting module to move reports using the Deployment option discussed below. The predefined roles Site Administrator include this capability.

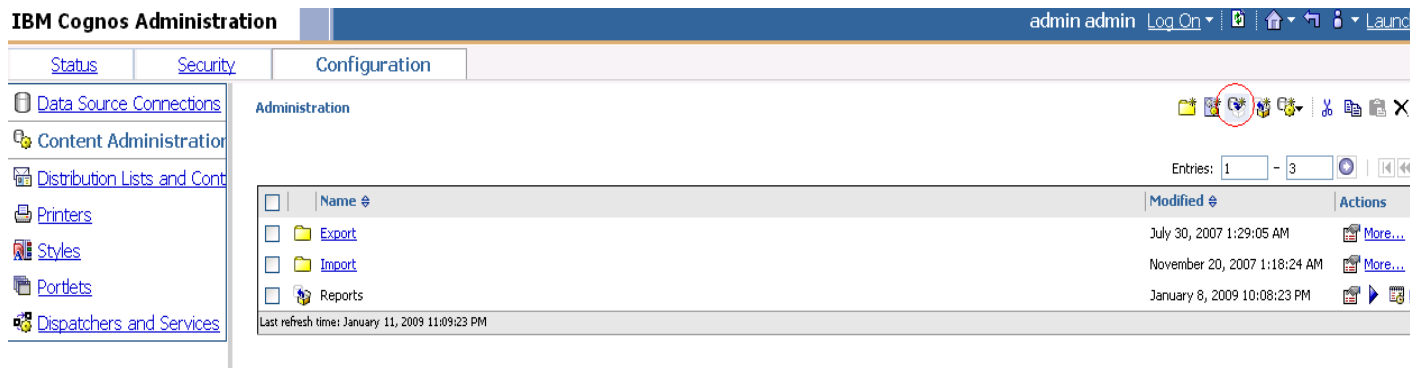
You must have access to the file system of the Cognos servers for both the source and target environments.

Creating an Export File

- Step 1** On the development machine, create a folder named **CustomReports** in the **Public Folders** directory of Cognos. The name of the folder may vary, but it must be a public folder.
- Step 2** Copy the new report to the **CustomReports** folder created above.
- Step 3** Log into Service Catalog as a user with the Report Administrator capability.
- Step 4** Choose the Reporting **Deployment** option as shown below.

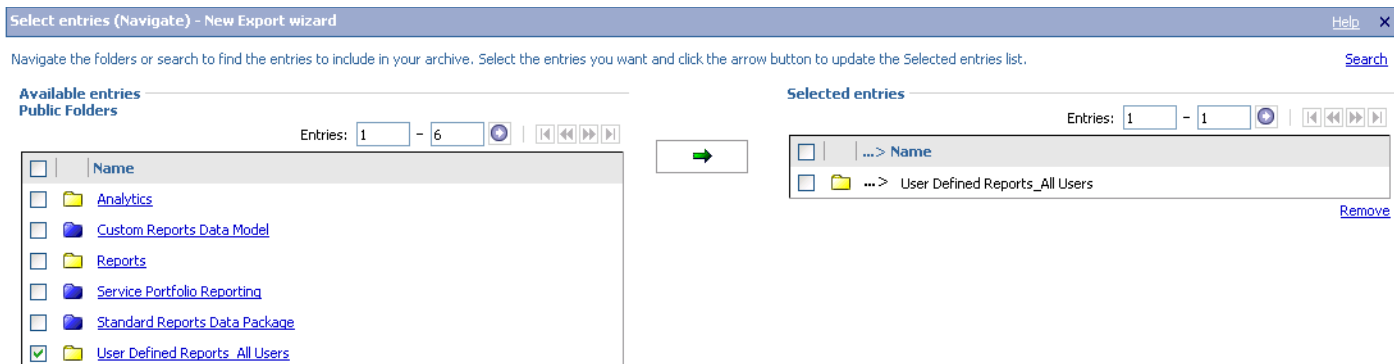


- Step 5** Go to Launch on the right hand side top corner and click **IBM Cognos Administration**.
- Step 6** Click the **Configuration** tab.
- Step 7** Go to Content Administration, and in the top-right corner of the screen click the **New Export** icon.



- Step 8** Provide a name (for example, CustomReports) and other details for the export, and then click **Next**.

- Step 9** On the Deployment Method page, choose **Select public folders and directory content**, and then click **Next**.
- Step 10** Click **Add**, and choose the **CustomReports** folder created in Step 1. Choose the Custom reports folders, click **Add**, and then at the bottom, click **OK**.

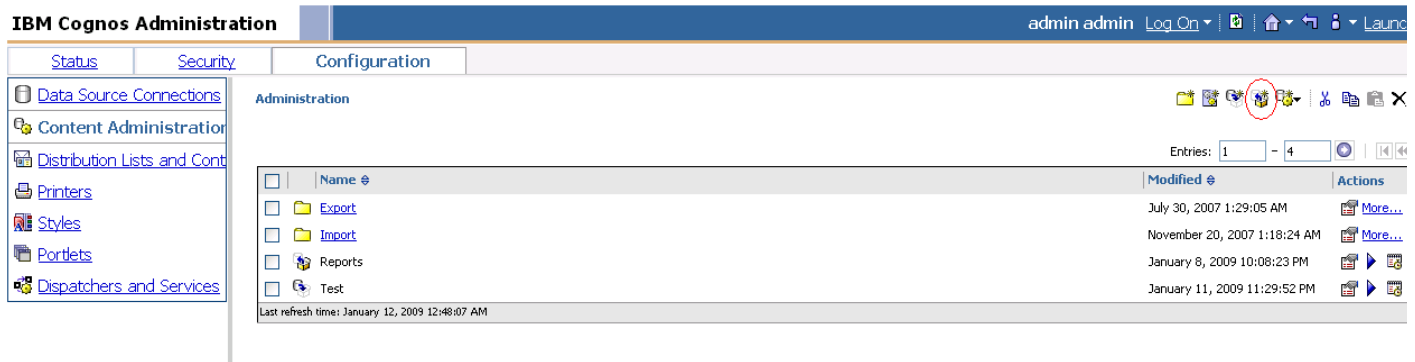


- Step 11** Deselect **Disable after import**, and then click **Next**.
- Step 12** Click **Next**.
- Step 13** In the “Select the directory content” section, choose **Include Cognos groups and roles** and **Replace existing entries**, and click **Next**.
- Step 14** In the “Specify the general options” section, choose **Include access permissions** and **Apply to new and existing entries**.
- Step 15** Under External namespaces, choose **Include references to external namespaces**.
- Step 16** In the “Entry ownership” section, choose **The user performing the import**, and click **Next** in the “Specify the general options” section.
- Step 17** In the “Specify a deployment archive” section, click **Next**.
- Step 18** In the “Review the summary” section, click **Next**.
- Step 19** In the “Select an action” section, click **Finish**.
- Step 20** Choose **Now**, and in “Run with options” section click **Run**.

This process creates **CustomReports.zip** in the <CognosHome>\c8\deployment folder of Cognos SOURCE machine.

Import the Exported File

- Step 1** Copy the exported file **CustomReports.zip** to the <CognosHome>\c8\deployment folder on the production machine.
- Step 2** Go to Launch on the right hand side top corner and click **IBM Cognos Administration**.
- Step 3** Click the **Configuration** tab.
- Step 4** Go to Content Administration and then click the **New Import** icon in the top-right corner of the screen.



- Step 5** Choose **CustomReports**, and click **Next**.
- Step 6** Choose **CustomReports**, and in the “Select the public folders content” section, click **Next**.
- Step 7** In the “Select the directory content” section, click **Next**.
- Step 8** In the “Specify the general options” section, click **Next**.
- Step 9** In the “Review the summary” section, click **Next**.
- Step 10** In the “Select an action” section, click **Finish**.
- Step 11** The new report folder **CustomReports** appears in the in public folders area of the production machine.

Modifying Form Data Reporting Configuration

As your environment grows, you may need to increase the number of form data reporting (Ad-Hoc reporting) dictionary and service tables; for example, if you bring additional services online or decide that you need to report on the contents of additional dictionaries. You can use the FDR Configurator utility to modify the form data reporting configuration after installing Cisco Prime Service Catalog Reporting (see [Chapter 3, “Reporting Guide”](#)).

This section describes how to launch and configure the FDR Configurator.



Note

You must log in as a user with administrative privileges to perform the tasks described in this section.

Launching the FDR Configurator

The FDR Configurator is launched by running a program which launches a configuration wizard.

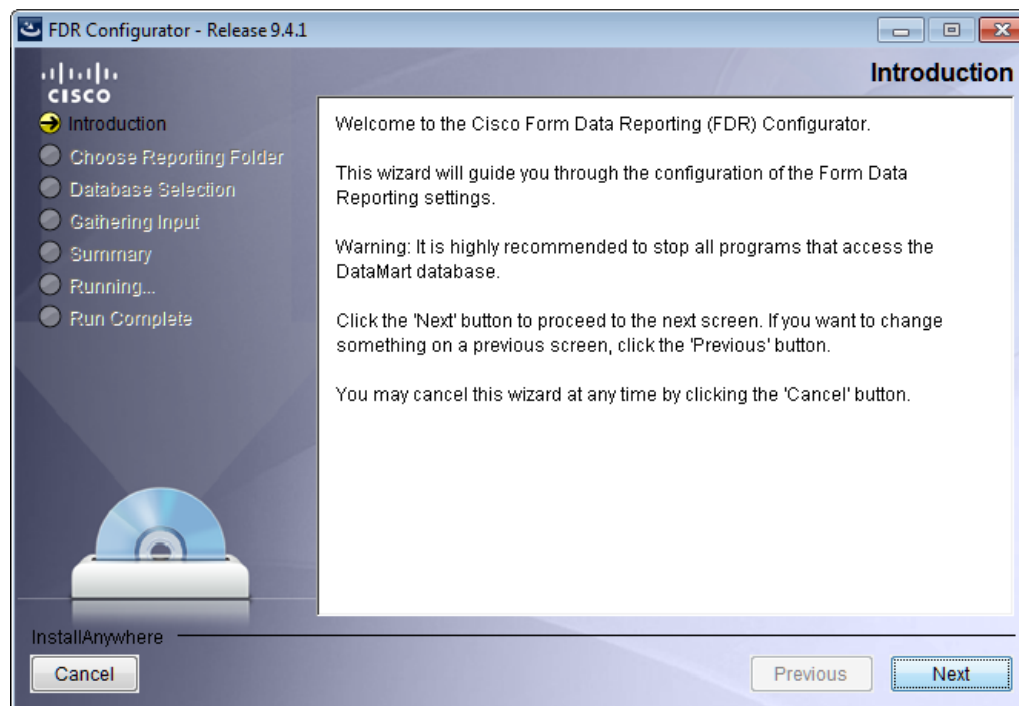
To execute the program:

- Step 1** On the Cognos machine, set the JAVA_HOME environment variable to <COGNOS_HOME>\bin64\jre\1.5.0. Then, add %JAVA_HOME%\bin to the PATH environment variable.
- Step 2** Stop all programs that access the DataMart database.
- Step 3** Go to the “<Reporting_Install_Dir>\cognos\bin” directory.

Step 4 Double-click **fdrConfigurator.exe** to launch the FDR Configurator.

A progress bar appears. When complete, the first page of the FDR Configurator wizard appears (Introduction), as shown in [Figure 5-1](#) below.

Figure 5-1 Introduction



How to Use the Configuration Wizard

The configuration wizard guides you through the configuration by presenting pages of fields to be configured. As each page is completed, click **Next** to advance to the next page, or **Previous** to return to a previous page. At the end of the wizard, click **Install** to begin the configuration. At any time, you may click **Cancel** to exit the wizard without configuring.

The configuration options are case-sensitive, so ensure that you enter a value, such as a database name, with case sensitivity; otherwise, your configuration may fail.

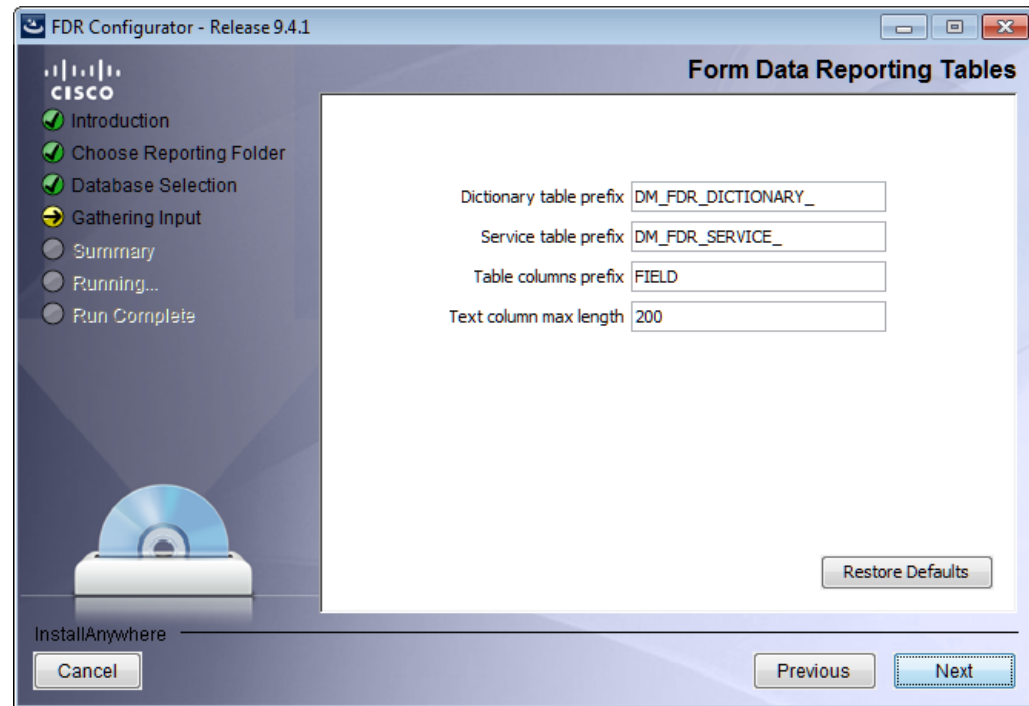
Running the FDR Configurator Wizard

This section provides instructions for running the FDR Configurator wizard.

- Step 1** Launch the FDR Configurator (see [“Launching the FDR Configurator”](#) section on page 5-7).
- Step 2** On the first page of the wizard (Introduction, [Figure 5-1](#)), click **Next** to begin.

- Step 3** For the next two pages of the wizard, for the Reporting installation you want to modify, choose your database type and enter the password for your Data Mart database, clicking **Next** after each page (see [“Running the Reporting Installation Wizard”](#) section on page 3-11 for more information).
- After clicking Next on the Data Mart Database page, the Form Data Reporting Tables page of the wizard appears, as shown in [Figure 5-2](#) below.

Figure 5-2 Form Data Reporting Tables



- Step 4** Your Form Data Reporting Tables settings are retrieved from your existing Data Mart database. You can modify these settings as described in [Table 5-1](#) below.

Step 5

Table 5-1 Form Data Reporting Tables

Option	Description
Dictionary table prefix	<p>If you must change the prefix, use only alphabetic characters and the underscore character. Do not use any numeric or special characters. A modification will cause the tables to be deleted and then recreated. It also resets the timestamp in database.</p> <p>Your form reporting data will need to be regenerated by running the ETL Scripts like 'update_datamart.cmd' or 'update_datamart fdr.cmd' scripts in full mode (see the “Configuring Advanced Reporting” section on page 3-22). You must also restart the “IMB Cognos 8” service.</p>

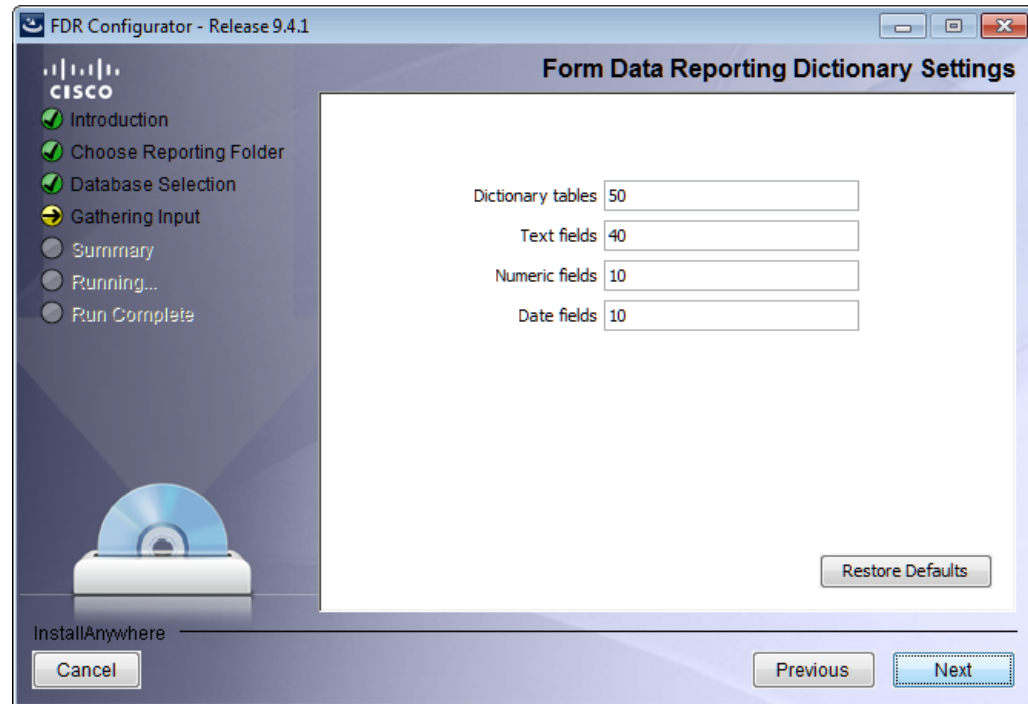
Table 5-1 **Form Data Reporting Tables**

Service table prefix	<p>If you must change the prefix, use only alphabetic characters and the underscore character. Do not use any numeric or special characters. A modification will cause the tables to be deleted and then recreated. It also resets the timestamp in database.</p> <p>Your form reporting data will need to be regenerated by running the ETL Scripts like 'update_datamart.cmd' or 'update_datamart fdr.cmd' scripts in full mode (see the “Configuring Advanced Reporting” section on page 3-22). You must also restart the “IMB Cognos 8” service.</p>
Table columns prefix	<p>The prefix for the field names in each table. This name is used to create tables with field name like FIELD1, FIELD2, ..., FIELDn. A modification will cause the tables to be deleted and then recreated. It also resets the timestamp in database.</p> <p>Your form reporting data will need to be regenerated by running the ETL Scripts like 'update_datamart.cmd' or 'update_datamart fdr.cmd' scripts in full mode (see the “Configuring Advanced Reporting” section on page 3-22). You must also restart the “IMB Cognos 8” service.</p>
Text column max length	<p>This parameter indicates the maximum size of dictionary and service table object varchar field size.</p> <p>You can only increment the current value. No data will be lost and timestamp is not reset. A modification will alters the Dictionary and Services tables in the Data mart database by changing the size of VARCHAR() columns.</p>

If you click **Restore Defaults**, your edited values are overwritten by the current configuration values from your existing Data Mart database.

Step 6 Click **Next** to proceed to the next page of the wizard.

The Form Data Reporting Dictionary Settings page of the wizard appears, as shown in [Figure 5-3](#) below.

Figure 5-3 Form Data Reporting Dictionary Settings

Step 7 Your Form Data Reporting Dictionary settings are retrieved from your existing Data Mart database. You can modify your Form Data Reporting Dictionary Settings as described in [Table 5-2](#).

Table 5-2 Form Data Reporting Dictionary Settings

Option	Description
Dictionary tables	<p>Number of tables required in the Data Mart database to store the data for reportable dictionaries. One table is needed per reportable dictionary.</p> <p>You can only increment the current value to maximum of 800. All existing data will be retained and tables are created incrementally.</p>
Text fields	<p>Number of Text type fields that are used in dictionaries based on the customer form reporting analysis.</p> <p>A modification will cause the tables to be deleted and then recreated. It also resets the timestamp in database.</p> <p>Your form reporting data will need to be regenerated by running the ETL Scripts like 'update_datamart.cmd' or 'update_datamart fdr.cmd' scripts in full mode (see the “Configuring Advanced Reporting” section on page 3-22. You must also restart the “IMB Cognos 8” service.</p>

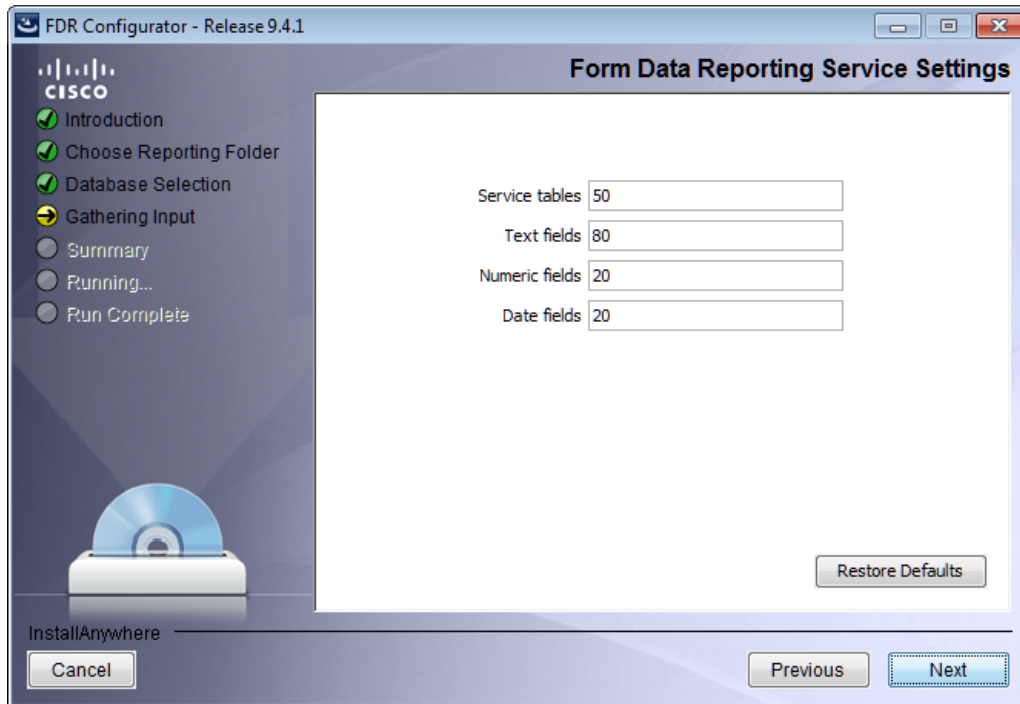
Table 5-2 Form Data Reporting Dictionary Settings

Numeric fields	<p>Number of Numeric fields that are used in dictionaries based on the customer form reporting analysis.</p> <p>A modification will cause the tables to be deleted and then recreated. It also resets the timestamp in database.</p> <p>Your form reporting data will need to be regenerated by running the ETL Scripts like 'update_datamart.cmd' or 'update_datamart fdr.cmd' scripts in full mode (see the “Configuring Advanced Reporting” section on page 3-22. You must also restart the “IMB Cognos 8” service.</p>
Date fields	<p>Number of Date fields that are used in dictionaries based on the customer form reporting analysis.</p> <p>A modification will cause the tables to be deleted and then recreated. It also resets the timestamp in database.</p> <p>Your form reporting data will need to be regenerated by running the ETL Scripts like 'update_datamart.cmd' or 'update_datamart fdr.cmd' scripts in full mode (see the “Configuring Advanced Reporting” section on page 3-22. You must also restart the “IMB Cognos 8” service.</p>

If you click **Restore Defaults**, your edited values are overwritten by the current configuration values from your existing Data Mart database.

Step 8 Click **Next** to proceed to the next page of the wizard.

The Form Data Reporting Service Settings page of the wizard appears, as shown in [Figure 5-4](#) below.

Figure 5-4 Form Data Reporting Service Settings

Step 9 Your Form Data Reporting Service settings are retrieved from your existing Data Mart database. You can modify your Form Data Reporting Service Settings as described in [Table 5-3](#).

Step 10

Table 5-3 Form Data Reporting Service Settings

Option	Description
Service tables	<p>Number of tables required in the Data Mart database to store the data for reportable services. One table is needed per reportable service.</p> <p>You can only increment the current value to maximum of 800. All existing data will be retained and tables are created incrementally.</p>
Text fields	<p>Number of Text type fields that are used in services based on the customer form reporting analysis.</p> <p>A modification will cause the tables to be deleted and then recreated. It also resets the timestamp in database.</p> <p>Your form reporting data will need to be regenerated by running the ETL Scripts like 'update_datamart.cmd' or 'update_datamart fdr.cmd' scripts in full mode (see the “Configuring Advanced Reporting” section on page 3-22. You must also restart the “IMB Cognos 8” service.</p>
Numeric fields	<p>Number of Numeric fields that are used in services based on the customer form reporting analysis.</p> <p>A modification will cause the tables to be deleted and then recreated. It also resets the timestamp in database.</p> <p>Your form reporting data will need to be regenerated by running the ETL Scripts like 'update_datamart.cmd' or 'update_datamart fdr.cmd' scripts in full mode (see the “Configuring Advanced Reporting” section on page 3-22. You must also restart the “IMB Cognos 8” service.</p>
Date fields	<p>Number of Date fields that are used in services based on the customer form reporting analysis.</p> <p>A modification will cause the tables to be deleted and then recreated. It also resets the timestamp in database.</p> <p>Your form reporting data will need to be regenerated by running the ETL Scripts like 'update_datamart.cmd' or 'update_datamart fdr.cmd' scripts in full mode (see the “Configuring Advanced Reporting” section on page 3-22. You must also restart the “IMB Cognos 8” service.</p>

If you click **Restore Defaults**, your edited values are overwritten by the current configuration values from your existing Data Mart database.

Step 11 Click **Next** to proceed to the Summary page of the wizard.

Step 12 The configuration wizard has enough information to start the configuration process. Review the settings that appear on this page. If you need to make any changes, click **Previous** to go back to a page and make the necessary changes. If they are correct, click **Install** to begin the configuration. Do not interrupt the wizard during this process.

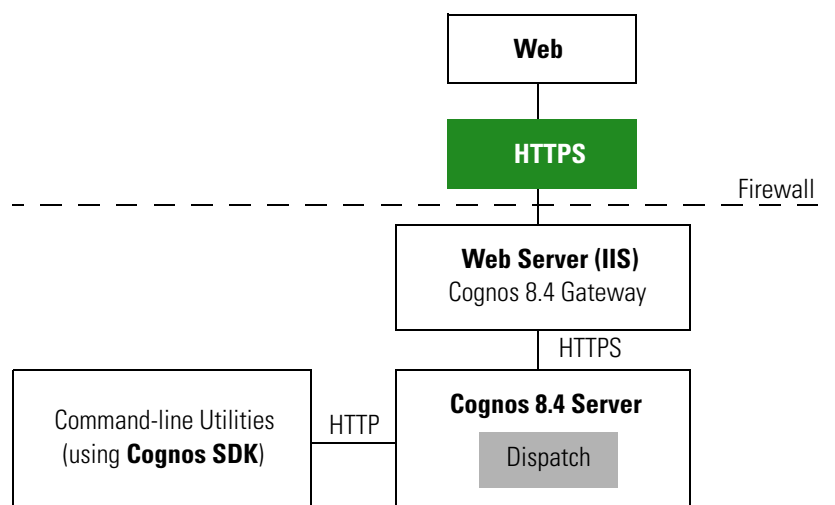
Step 13 If the configuration process completes successfully, click **Done** to exit the configuration wizard.

If the configuration process fails, click **Done** to exit the configuration wizard, and then return to Step 1 to retry the FDR Configurator. Logs of the configuration process are located in the “<Reporting_Install_Dir>_CSP_FDRConfigurator\Logs” directory.

Configuring HTTPS for Cognos

Overview of SSL support in Cognos Server

To enable SSL support on the Cognos Server one has to change the protocol of the Cognos Gateway to HTTPS (assuming that the Web Server like IIS is also setup for HTTPS).



Prerequisites and Assumptions

1. Https should be enabled on IIS Server where Cognos Server is installed using this instruction: <http://inservice/QA/kb/?View=entry&EntryID=4>.
2. In addition to the above instruction, one needs to remove the TCP port (80) on IIS.



Note

In Windows Server 2008 R2 we can not remove TCP port (80) and hence Firewall should be used to disable the TCP port (80)).

3. For additional security one can use a Firewall to block all the non-SSL ports on the system where Cognos+IIS is installed (for example, port 80 and 9300).
4. All Command-line utilities used for SA/Reporting will still Http protocol as those commands are run on the same system where Cognos Server is installed.
5. It is also an overhead and performance concern to enable Https/SSL for the command-line utilities, and hence it remains non-SSL.

6. “CognosServername” in the CnfParams table should be manually changed to set the SSL port that is configured on IIS.

Importing IIS Server Certificate to the Cognos Server

Step 1 The Server Certificate used for IIS should be copied to a secure location on the Cognos 8.4 BI server.



Note Ensure that the Server certificate is in Base-64 encoded X.509 format.

Step 2 Open command prompt and go to the folder “C:\Program Files (x86)\cognos\c8_64\bin”.

Step 3 Set JAVA_HOME=C:\Program Files (x86)\cognos\c8_64\bin\jre\1.5.0.

Step 4 Import the IIS Server certificate into Cognos 8.4’s JCA Keystore by typing the following command:

```
ThirdPartyCertificateTool.bat -T -i -r CA_certificate_file -k  
crn_location/configuration/signkeypair/jCAKeystore -p password  
(e.g. ThirdPartyCertificateTool.bat -T -i -r "c:\certnew.cer" -k "C:\Program  
Files\Cognos\c8\configuration\signkeypair\jCAKeystore" -p NoPassWordSet)
```

Configuring Cognos 8.4 for SSL

Step 1 Choose **Program Files > IBM Cognos 8 > IBM Cognos Configuration**.

Step 2 Choose **Environment > Gateway URI**. Change http to **https**, and port default 80 to **443**.

IBM Cognos Configuration - nsdev01

File Edit View Actions Help

Explorer

- Local Configuration
 - Environment
 - IBM Cognos content database
 - Logging
 - File
 - IBM Cognos 8 service
 - IBM Cognos 8
 - Source Control Systems
 - Portal Services
 - Data Manager
 - Data Manager network services
 - Client
 - localhost
 - Server
 - SOAP Server
 - Socket Server
 - Security
 - Data Access

Environment - Group Properties

| Name | Value |
|-------------------------------------|--|
| Deployment files location | ../deployment |
| Data files location | ../data |
| Map files location | ../maps |
| Temporary files location | ../temp |
| Encrypt temporary files? | False |
| Format specification file location | ../configuration/cogformat.xml |
| Sort buffer size in MB | 4 |
| IP Version for Host Name Resolution | Use IPv4 addresses |
| Gateway Settings | |
| Gateway URI | https://localhost:443/cognos8/cgi-bin/cognos.cgi |
| Gateway namespace | |
| Allow namespace override? | False |
| Dispatcher URIs for gateway | http://localhost:9300/p2pd/servlet/dispatch/ext |
| Controller URI for gateway | http://localhost:80/cognos8/controllerServer |
| Dispatcher Settings | |
| External dispatcher URI | http://localhost:9300/p2pd/servlet/dispatch |
| Internal dispatcher URI | http://localhost:9300/p2pd/servlet/dispatch |
| Dispatcher password | ***** |
| Other URI Settings | |

Groups environment related properties.

Configure these properties so that installed components can communicate with other IBM Cognos 8 components installed on remote com are specific to this computer, such as where to store IBM Cognos 8 files.

Step 3 Choose **Cryptography > Use mutual authentication?**, and change to **True**.

The screenshot shows the IBM Cognos Configuration - nsidev01 window. The left pane displays the Explorer tree with the following structure:

- Local Configuration
 - Environment
 - IBM Cognos content database
 - Logging
 - File
 - IBM Cognos 8 service
 - IBM Cognos 8
 - Source Control Systems
 - Portal Services
 - Data Manager
 - Security
 - Authentication
 - newScale
 - TrustedSignOn
 - Cognos
 - Cryptography (selected)
 - Cognos
 - IBM Cognos Applicati...
 - Data Access

The right pane displays the 'Cryptography - Component Properties' dialog. It contains a table with the following properties:

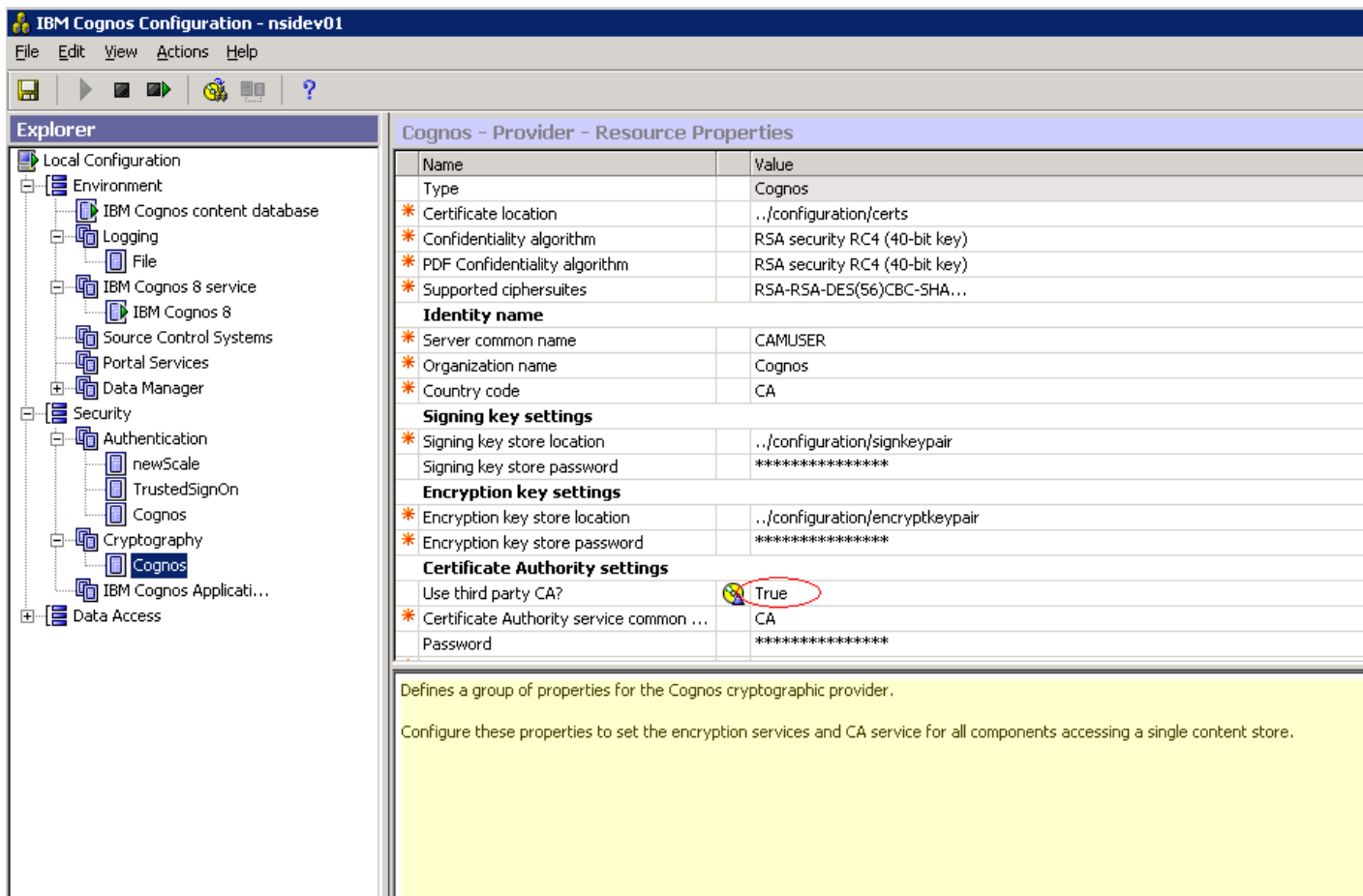
| Name | Value |
|---|-----------------------------------|
| CSK settings | |
| Store symmetric key locally? | True |
| * Common symmetric key store location | ../configuration/csk |
| Common symmetric key store password | ***** |
| * Common symmetric key lifetime in days | 365 |
| SSL settings | |
| * Use mutual authentication? | True |
| * Use confidentiality? | True |
| Advanced algorithm settings | |
| * Digest algorithm | SHA1 (Secure Hash Algorithm) |
| * Signing key pair algorithm | DSA (Digital Signature Algorithm) |

Below the table, there is a text box with the following text:

Defines a group of properties that enables secure communication between the product components and data encryption.

To use a cryptographic provider that already exists in your environment, you must delete the default provider. You can only use one click New and then click Provider to use a different cryptographic provider. After you select the provider, you can use this group of properties to control access.

Step 4 Choose **Cryptography > Cognos > Use third party CA?**, and change to **True**.



- Step 5** Save the configuration.
- Step 6** Stop the IBM Cognos 8.4 Service.
- Step 7** Restart.

Changes to newscale.properties for SSL

- Step 1** In the newscale.properties file, find the cognoswebprotocol parameter, and change http to **https**.
- Step 2** Restart the Request Center application server.

Verification

- Step 1** Log on to <https://CognosServername.domain.com/cognos8>, and check whether you can log on to Cognos Connection.

- Step 2** Log on to <https://RequestCenterServername.domain.com/RequestCenter>, and check whether you can navigate to Reporting or Advanced Reporting modules.

Troubleshooting

If you receive any of the errors described in this chapter, please try the recommended solution.

create_model.cmd failed (for Oracle DB)

Error

The root cause for this issue would be:

- Unspecified datamart schema user name for the parameter `datamart.db.schema` in the `setup.properties` during configuration.

```
2008-10-07 18:23:52,742 INFO Executing ScriptPlayer...
2008-10-07 18:23:52,914 INFO An existing project is being opened.
2008-10-07 18:23:57,414 INFO Transaction count: 13
2008-10-07 18:23:57,414 INFO
2008-10-07 18:23:57,414 INFO Transaction: 1
2008-10-07 18:23:57,430 INFO Action: SetDefaultLocale successful, continuing...
2008-10-07 18:23:57,430 INFO
2008-10-07 18:23:57,430 INFO Transaction: 2
2008-10-07 18:23:57,430 INFO Action: SetActiveLocale successful, continuing...
2008-10-07 18:23:57,430 INFO
2008-10-07 18:23:57,430 INFO Transaction: 3
2008-10-07 18:23:57,805 INFO Action: Modify successful, continuing...
2008-10-07 18:23:57,805 INFO
2008-10-07 18:23:57,805 INFO Transaction: 4
2008-10-07 18:23:57,805 INFO Action: Modify successful, continuing...
2008-10-07 18:23:57,805 INFO
2008-10-07 18:23:57,805 INFO Transaction: 5
2008-10-07 18:23:58,305 INFO Action: DBImport failed, skipping...
2008-10-07 18:23:58,305 INFO Reason: BMT-MD-5002 The ImportSpec object 'DBO' of type
'schema' does not exist in the database.
2008-10-07 18:23:58,305 INFO
2008-10-07 18:23:58,305 INFO Transaction: 5 failed, skipping...
```

Solution

- Open the `cognos.properties` file located under (`<requestcenter.destination>/Cognos/Config`).
- Edit the value for the `datamart.db.schema` as below:
 - `datamart.db.schema=dbo` (SQL Server database)
 - `datamart.db.schema=<dm user name>` (Oracle database)



Note

Ensure you make the same change in the `setup.properties` file before running the `configure.cmd` in case of upgrades (`<Cognos_temp_installer>/cognosinstaller`).

- Save the `cognos.properties` file after editing the `datamart.db.schema` parameter.

- Open a Command Prompt window, go to <requestcenter.destination>\Cognos\bin directory, and execute create_model.cmd and publish_fdr_pkg.cmd script.

CAM_AAA_Authenticate Failed

Error

The root causes for this issue would be:

- Application has not been logged on with fully qualified domain name.
- Cognos server name does not contain a valid domain name.

Cognos ReportNet

1 CAM-AAA-0027



The function call to 'CAM_AAA_Authenticate' failed. Reason: 'CCL_ASSERT(redirectCount < 10);'

OK

Solution 1

Log on to the Request Center application with a fully qualified domain name. You need to give the fully qualified name for the host name (<host Name>+<domain names>).

For example:

- inssa.oqkqas.celosis.com
- inssa.celosis.com
- inssa.celosis.net

Solution 2

- Open the setup.properties file located under (<cognos_temp_Installer> /cognosinstaller).
- Edit the gateway and application server as below if the server name does not have a fully qualified domain name.

For example:

- gateway.server.name=inssa.qakqas.celosis.com.
- application.server.name= inssa.qakqas.celosis.com.
- Open a Command Prompt window, go to <cognos_temp_Installer> /cognosinstaller) directory, and execute configure.cmd script.

Logon failed (401 Unauthorized) while execution of batch scripts under (<requestcenter.destination>/Cognos/bin)

Error

- The root cause for this would be that the customer policy does not allow enabling the Anonymous access option in IIS.

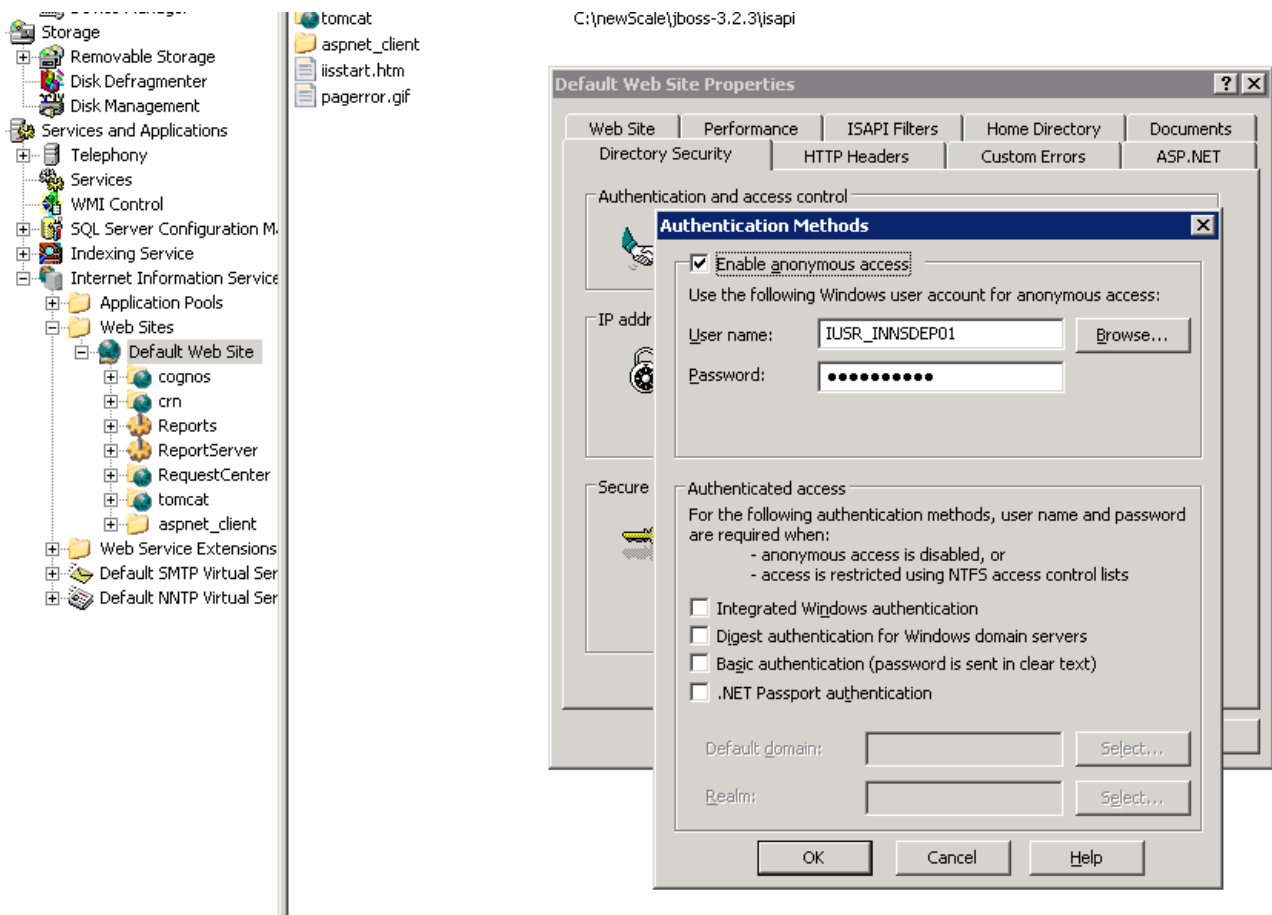
```

C:\cisco\cognos\bin>create_datasource.cmd
2008-07-11 03:32:33,271 INFO Creating the DataSource...
2008-07-11 03:32:33,567 INFO Database connection String: ^User
ID: ^?Password: ;LOCAL;OL;DBInfo_Type=MS;Provider=SQLOLEDB;User ID=%s;Password=%s;Data
Source=vmhost13;Provider_String=Initial Catalog=Datamart;@COLSEQ=
2008-07-11 03:32:34,895 ERROR Login failed...
2008-07-11 03:32:34,895 ERROR (401)Unauthorized

```

Solution

- Step 1** Open Internet Services Manager.
- Step 2** In the left pane of Internet Information Services, expand the server name.
- Step 3** Expand Default Web Site.
- Step 4** Expand the c8 virtual directory.
- Step 5** Click the **cgi-bin** virtual directory.
- Step 6** In the right pane of Internet Information Services, right-click the **cognos.cgi** file and choose **Properties**. If the communication to Cognos is done through a gateway other than CGI, check the properties of the associated file.
- Step 7** In the File Security tab, click **Edit**.
- Step 8** Check the **Enable Anonymous access** check box.



- Step 9** Restart IIS.
- Step 10** Open a Command Prompt window, go to <requestcenter.destination>\Cognos\bin directory, and execute failed batch scripts.
-

Unable to log onto Service reporting modules

Error

The root causes for this issue would be:

- JAVA_HOME has been set in the system variable.
- EncryptionMethod parameter value was missing in the CnfParams table on the Request Center database.

The Log on page appears, even after supplying the correct user ID and password:

Log on

Please type your credentials for authentication.

User ID:

Password:

OK

Cancel

Solution 1

- Step 1** Delete the JAVA_HOME variable from the System variables.
- Step 2** Reboot the system.
- Step 3** Log on to the application.
-

Solution 2

- Step 1** Go to the Request Center database and open the SQLServer Management Studio or Oracle SQL*Plus.
- Step 2** Run the query: `SELECT * FROM CnfParams WHERE Name= "EncryptionMethod"`.
- Step 3** If no record is found from the above query, run the statement: `INSERT INTO CnfParams (Name, Value) values ("EncryptionMethod", "MD5")`.
- Step 4** Commit the inserted row.
- Step 5** Go to Services and restart the IBM Cognos 8 service.
-

Custom Reports Data Model does not exists error when clicking on the Ad-Hoc Reporting link in Request Center

Error

The root cause for this issue is:

- The Custom Reports Data Model package is not published to the Cognos Server.

Solution

Open a Command Prompt window, go to the *<requestcenter.destination>\Cognos\bin* directory, and execute the `create_model.cmd` and `publish_fdr_pkg.cmd` scripts.

Unable to run publish_fdr_pkg.cmd successfully... (SQL Server DB)

Error

The root cause for this issue is:

- The Data Mart database name (**datamart.db.name**) specified in the `setup.properties` file during the configuration is not case sensitive.

```
RequestCenter] ConfUtil: ClassLoadersun.misc.Launcher$AppClassLoader@e80a59
[RequestCenter] ConfUtil: (via classloader) ConfigFile:null
Configuration not yet initialized
[RequestCenter] ConfUtil:(set explicitly) ConfigFile:config/cognos.properties
[RequestCenter] ConfUtil:(set explicitly) LogConfigFile:config/log4j.xml
[RequestCenter] ConfUtil: ClassLoadersun.misc.Launcher$AppClassLoader@e80a59
[RequestCenter] ConfUtil.init loaded properties from: config/cognos.properties
[RequestCenter] ConfUtil:(via classloader) LogConfigFile:config/log4j.xml
LogUtilFactory - using Impl: com.newscale.bfw.logging.LogUtilCommonsImpl
2007-10-15 10:58:33,744 INFO Executing ScriptPlayer...
2007-10-15 10:58:33,853 INFO A new project is being created.
2007-10-15 10:58:48,137 INFO Transaction count: 834
2007-10-15 10:58:48,137 INFO
2007-10-15 10:58:48,137 INFO Transaction: 1
2007-10-15 10:58:48,137 INFO Action: SetDefaultLocale successful, continuing...
2007-10-15 10:58:48,137 INFO
2007-10-15 10:58:48,137 INFO Transaction: 2
2007-10-15 10:58:48,152 INFO Action: SetActiveLocale successful, continuing...
2007-10-15 10:58:48,152 INFO
2007-10-15 10:58:48,152 INFO Transaction: 3
2007-10-15 10:58:48,152 INFO Action: Modify successful, continuing...
2007-10-15 10:58:48,152 INFO
2007-10-15 10:58:48,152 INFO Transaction: 4
2007-10-15 10:58:48,152 INFO Action: Modify successful, continuing...
2007-10-15 10:58:51,106 INFO Action: DBImport failed, skipping...
2007-10-15 10:58:51,106 INFO Reason: BMT-MD-5002 The ImportSpec object 'DatamartD' of
type 'catalog' does not exist in the database.
2007-10-15 10:58:51,106 INFO
2007-10-15 10:58:51,106 INFO Transaction: 4 failed, skipping...
```



Note

The ETL script `publish_fdr_pkg.cmd` produced the DBImport error “ImportSpec object ‘DatamartD’ of type ‘catalog’ does not exist in database”.

Solution

- Step 1** Open the cognos.properties file located under (<requestcenter.destination>/cognos/config).
- Step 2** Find the parameter **datamart.db.name**. Specify the name of Data Mart database as it was given in the database; the name is case-sensitive.

**Note**

Ensure you make the same change in the setup.properties file before running configure.cmd in case of upgrades (<Cognos_temp_installer>/cognosinstaller).

EXAMPLE: If the Data Mart database was specified as DataMart.

Inorrect: **datamart.db.name**=DataMart

Correct: **datamart.db.name**=Datamart

- Step 3** Open the command prompt window, go to <requestcenter.destination>\Cognos\bin directory, and execute **create_model.cmd** and **publish_fdr_pkg.cmd** scripts.

Unable to Start Cognos 8 Service and Dispatcher Errors**Error**

The root causes for this issue could be various reasons.

- Check the log files (cogserver.log and cogconfig_response.csv) located at </cognos_installed_location/c8/logs> and capture the error codes and see the solutions below associated with each error code.

IBM Cognos 8 Business Intelligence

The Cognos gateway is unable to connect to the Cognos BI server. The server may be unavailable or the gateway may not be correctly configured.

Try again or contact your administrator.

Error Codes

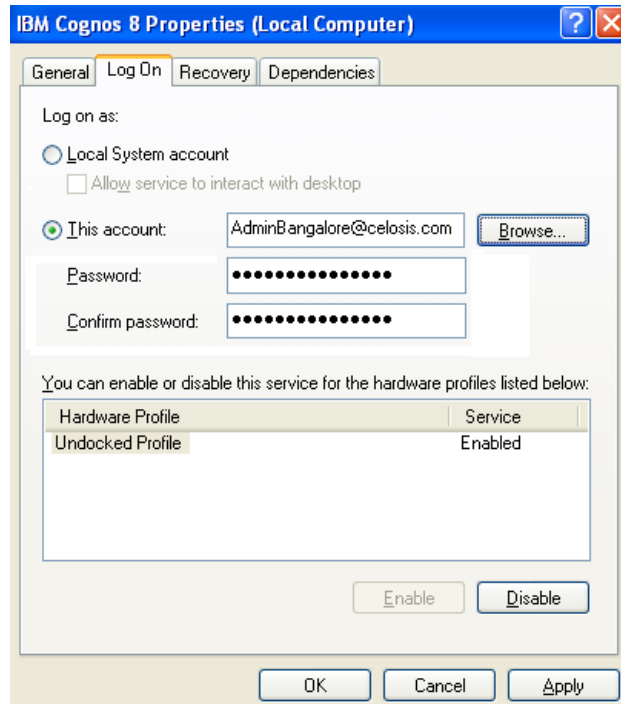
CFG-ERR-0103 Unable to start Cognos 8 service. Execution of the external process returns an error code value of '-1'.

The root causes for this issue would be:

- The named account used to start the Cognos 8 service had an expired password or does not have admin privileges.
- The shutdown port number has a conflict.

Solution 1

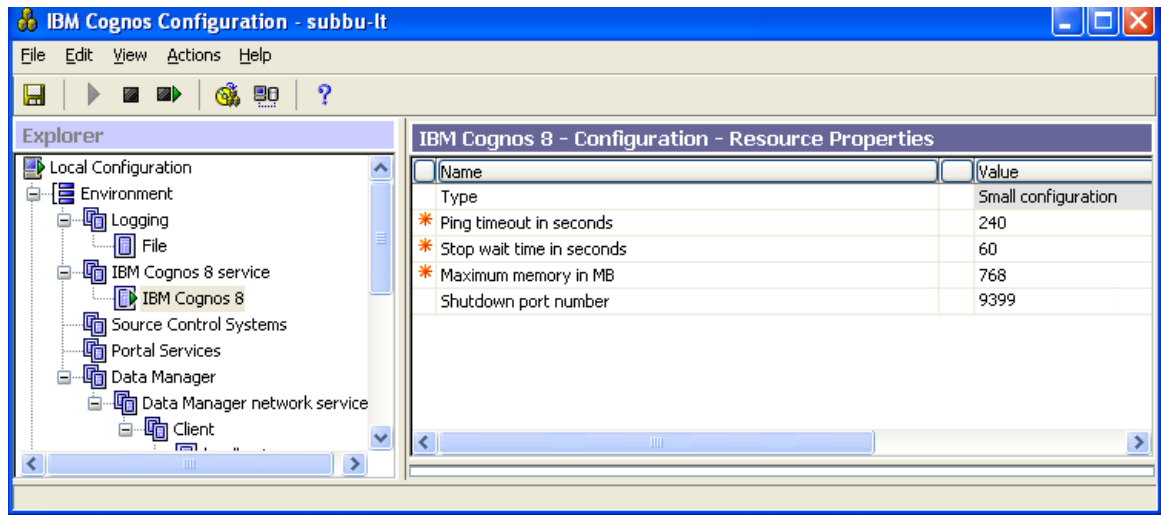
- Step 1** Go to the services.
- Step 2** Go to **IBM Cognos8 Service**. Right-click and choose **properties**.
- Step 3** Click the **Logon** tab as show below:



- Step 4** Ensure that the user account provided has admin privileges and the given password has not expired.
- Step 5** Go to the Services and restart the IBM Cognos8 Service.

Solution 2

- Step 1** Choose **Start > Programs > IBM Cognos 8 > IBM Cognos8 Configuration**.
- Step 2** Change the shut down port number from 9399 to **9410**.



Step 3 Save changes and restart the IBM Cognos 8 Service.

Error Codes

CAM-CRP-1114 Unable to find the Certificate Authority self-signed certificate with alias 'ca' in the keystore 'C:/Program Files/cognos/c8/configuration/signkeypair\jCAKeystore'.

CAM-CRP-1085 an error occurred while verifying that the security provider classes were loaded. Reason: java.lang.ClassNotFoundException: org.bouncycastle134.jce.provider.

The root cause for this issue is:

- JAVA_HOME has been set in the system variable and pointing to the wrong JRE/JDK.

Solution

Step 1 Delete **JAVA_HOME** from the system variables.

Step 2 Reboot the system.

Step 3 Open the command prompt, go to (<Cognos_temp_installer>/cognosinstaller), and execute **configure.cmd**.

Error Codes

CM-CFG-5063 a Content Manager Configuration error was detected while connecting to the ContentStore.

The root cause for this is:

- The SID for the ContentStore database does not have a valid name or TNS is not registered with the SID name.

Solution

-
- Step 1** Ensure sure both the SID and Service have the same name for the ContentStore database and the SID has no underscore in it.
- Step 2** Register the TNS using the SID and not the SERVICE NAME.
- Step 3** Make sure that you can connect to the Oracle instance through “tnsping <SID>”.
- Step 4** Open the command prompt window, go to (<cognos_temp_intaller>/cognos installer), and execute **configure.cmd**.
-

ErrorCodes

- [ERROR] Content Manager failed to start because it could not load driver “oracle.jdbc.OracleDriver”.
- The root cause for this issue would be ojdbc14.jar was missing in the cognos lib directory.

Solution

-
- Step 1** Copy the **ojdbc14.jar** from //oracle/JDBC/lib to <cognos_install_dir> //cognos/c8/webapps/p2pd/WEB-INF/lib.
- Step 2** Open the command prompt window, go to (<cognos_temp_intaller>/cognos installer), and execute **configure.cmd**.
-

Configuration of Cognos8 Service hangs and does not start up**Error**

The root causes for this issue would be:

- DEP (Data Execution Prevention) settings (Windows 2003 and Windows XP) which might be blocking the cognos executables.
- JAVA_HOME has been set in the system variables and pointing to the wrong JRE/JDK.

Solution

-
- Step 1** Delete **JAVA_HOME**, if it exists in the System variables.
- Step 2** Right-click My Computer, choose **Properties**.
- Step 3** Click the **Advanced** tab, and then click the first **Settings** button under Performance.
- Step 4** Click the **Data Execution Prevention** tab.
- Step 5** Choose the option: **Turn on DEP for all programs and services except those I select**.
- Step 6** Click **Add**, and add the following executables files from the respective locations.

| | |
|-----------------------|--|
| java.exe | path = C:\Program Files (x86)\cognos\c8_64\bin\jre\1.5.0\bin64 |
| cogconfigw.exe | path = C:\Program Files (x86)\cognos\c8_64\bin64 |
| cogbootstrap.exe | path = C:\Program Files (x86)\cognos\c8_64\bin64 |
| BIBusTKServerMain.exe | path = C:\Program Files (x86)\cognos\c8_64\bin64 |

Step 7 Reboot the system.

Import_reports.cmd fails while upgrading

Error

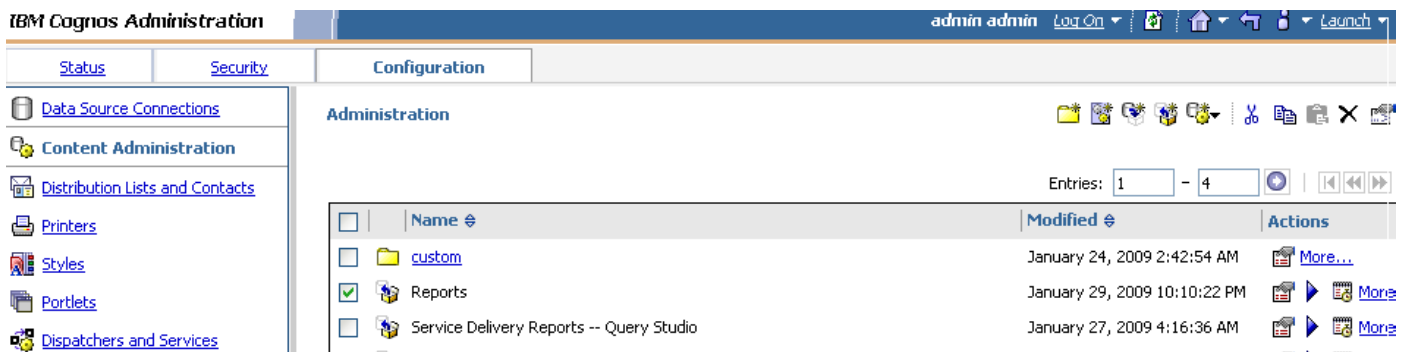
ERROR CM-REQ-4204 The replace operation failed because the class (exportDeployment) of the existing object, '/adminFolder/exportDeployment[@name='Reports']'.

The root cause for this issue is:

- Report archive file (Report.zip) got corrupted in the cognos server.

Solution

- Step 1** Log on as administrator to Request Center.
- Step 2** Choose the **Reporting** module.
- Step 3** Click the **Reports** tab.
- Step 4** On the right-hand side, click **Launch > IBM Cognos Administration**.
- Step 5** Choose the **Configuration** tab, click **Content Administration**, then click **Reports**.
- Step 6** Delete **Reports** (see below).



- Step 7** Open command prompt and go to <requestcenter.destination>\Cognos\bin directory, and execute the **create_reports.cmd** script.

Update_datamart.cmd fails (For SQL Server Database)

Error

INFO UDA-SQL-0115 Inappropriate SQL request.

INFO UDA-SQL-0564 [Microsoft OLE DB Provider for SQL Server] Could not find stored procedure 'sp_DropDMIndxs'. (SQLSTATE=42000, SQLERRORCODE=2812).

The root cause for this issue is:

- Default schema owner for the Data Mart database objects (table/views/stored procedure) was not dbo.

Solution

-
- Step 1** Ensure the default schema owner for the Data Mart database is **dbo**.
- Step 2** Open a command prompt and go to <requestcenter.destination>\Cognos\bin directory, and execute the **update_datamart.cmd** script.
-

publish_fdr_pkg.cmd fails even After create_model.cmd runs Successfully

Error

The root cause for this error would be either the Reportable Dictionary or Service has the same name as a query subject (dimension/fact table name).

```
2008-10-14 22:19:13,155 INFO Action: Modify successful, continuing...
2008-10-14 22:19:13,202 INFO Action: Modify successful, continuing...
2008-10-14 22:19:13,233 INFO Action: Modify successful, continuing...
2008-10-14 22:19:13,233 INFO Action: Modify failed, skipping...
2008-10-14 22:19:13,249 INFO Reason: BMT-MD-0006 Another object of type 'Query Subject'
already exists with the name 'Person' in Namespace 'FormETL'. Please choose a unique name.
2008-10-14 22:19:13,249 INFO
2008-10-14 22:19:13,249 INFO Transaction: 10 failed, skipping...
2008-10-14 22:19:13,249 INFO
2008-10-14 22:19:13,249 INFO Transaction: 11
2008-10-14 22:19:13,264 INFO Action: Modify failed, skipping...
2008-10-14 22:19:13,264 INFO Reason: BME-SP-0023 Invalid property handle ID:
/O/name[0]/O/[FormETL].[RC_SERVICELOCATION].[FIELD1]
2008-10-14 22:19:13,264 INFO Transaction: 11 failed, skipping...
2008-10-14 22:19:13,280 INFO
2008-10-14 22:19:13,280 INFO Transaction: 12
2008-10-14 22:19:13,327 INFO Action: SetSecurityViewDefinition failed, skipping...
2008-10-14 22:19:13,327 INFO Reason: BME-SP-0023 Invalid property handle ID:
[FormETL].[Person].[REQUISITIONID]
2008-10-14 22:19:13,327 INFO Transaction: 12 failed, skipping...
```



Note

For more log information, go to c:\<APP_HOME>\logs\cognos_metamodel_update.log.

Solution

Open the particular dictionary or service shown in the log file, rename the dictionary or service to a unique name, run **fdr/runETL.jsp**, then **create_model.cmd**, and then **publish_fdr_pkg.cmd**.

**Note**

Do not name a dictionary or service which is reportable with the following names:

- Calendar Scheduled Date
- CalendarStartedDate
- CalendarDueDate
- CalendarClosedDate
- Customer
- Dictionary
- Keyword
- Performer
- Queue
- Requestor
- Service
- TaskType
- All Tasks
- Authorization Tasks
- Service Delivery Tasks
- RequisitionTaskFact
- ServiceRequestFact
- ServiceTaskFact
- TaskEffortEntryFact
- Group
- Organizational Unit
- Person

In order for the ETL scripts to run correctly, it is important that you set the system clock of the Service Catalog Application Server machine correctly, and the system clock of the Service Catalog database machine correctly. Furthermore, the database clock for the RDBMS instance where the Service Catalog database resides needs to match the system clock of the operating system where the database is installed. All date/time values are stored in the Service Catalog database and in the Data Mart database in GMT. Therefore, if you have a distributed environment where the Application Server machine is different from the database machine, it is OK for these two machines to be in different time zones. Just make sure that the system clock is set correctly for whatever time zone each machine happens to be in.

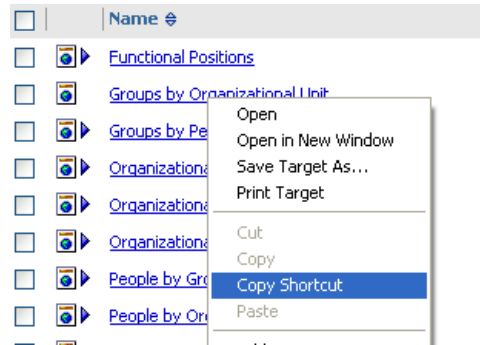
If you are using Symantec Antivirus, you must be running version 10.0.2.2000 or later.

How to find the Report URL

Solution

-
- Step 1** Log on to Request Center.
- Step 2** Choose the **Reporting** module.

Step 3 Right-click the Report, and choose **Copy Shortcut**, as shown below:



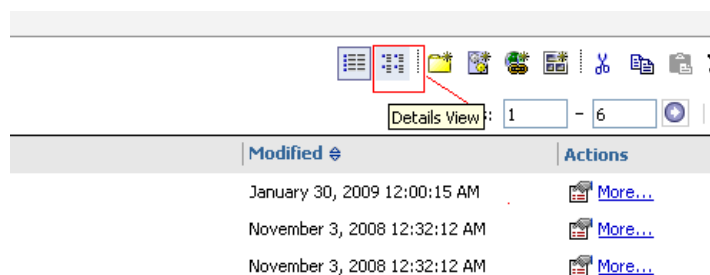
Step 4 If you paste the shortcut in same browser window as the Request Center instance was opened, it will take you to the respective report.

Step 5 If you open a new browser window and paste the shortcut, it will prompt with the namespace drop-down list. Choose **newScale** namespace, and enter the logon credential—it will take you to the respective report.

How to change the reports home page from default List View to Details View

Solution

- Step 1** Log on to the Request Center application.
- Step 2** Choose the **Reporting** module.
- Step 3** Click the **Reports** tab.
- Step 4** On the right-hand side, click **Details View**, as shown below:





INDEX

A

Advanced Reporting
 Configuration [3-22](#)
 Postinstallation Tasks [3-23](#)
Application Host, Requirements [2-8](#)
Application Server Information Worksheet
 JBoss [2-16](#)
 WebLogic [2-32](#)
 WebSphere [2-50](#)

B

Browser, Settings [2-4](#)
Browser Cache Setting [4-15](#)

C

Clustered Configuration [2-5](#)
Clustered Topology [2-3](#)
Cognos [2-7](#)
 Configuring HTTPS for Cognos [5-14](#)
 Configuring Memory Usage [5-2](#)
 ContentStore Database [2-9](#)
 Database Server Requirements [3-4](#)
 Downloading [3-7](#)
 Installation [3-7, 4-16](#)
 Server Requirements [3-2](#)
 Setting the Timeout Interval [5-2](#)
 Troubleshooting [5-19](#)
Configuration Prerequisites [2-4 to 2-7](#)
ContentStore Database [2-9, 3-4](#)

D

Database Host, Requirements [2-8](#)
Database Information Worksheet [2-13](#)
Database Repair [4-13](#)
Databases
 Configuration [2-9 to 2-14](#)
 Oracle [2-10 to 2-11](#)
 SQL Server [2-11](#)
Datamart Database [3-4](#)
Data Validation [4-13](#)
Deployment Topology [2-2](#)

E

Email Templates, Configuring [4-14](#)
Existing Installation Detected [4-8](#)

F

Firefox [2-5](#)
Form Data Reporting Dictionary Settings [5-11](#)
Form Data Reporting Service Settings [5-12](#)
Form Data Reporting Tables [5-9](#)

H

Hardware Requirements [2-7 to 2-8](#)

I

IBM Cognos. See Cognos.
Importing, Service Portal Reports [3-21](#)

Installation

- Executing Setup [2-53](#)
- New Typical Scenario [2-54](#)
- Overview [2-9](#)
- Reporting [3-10](#)
- Running the Reporting Installer for Upgrade [4-16](#)
- Typical and Advanced [2-52](#)

Internet Explorer [3-3](#)

Internet Information Services (IIS) [3-2](#)

J

Java

- Development Kit [2-6](#)
- Installing for JBoss [2-15](#)
- Installing for WebLogic [2-17](#)

JBoss

- Application Server Information Worksheet [2-16](#)
- Installing [2-15](#)
- Postinstallation Configuration [2-72 to ??](#)
- Preinstallation Configuration [2-15 to 2-17](#)

JDBC Data Sources [2-27, 2-43](#)

JMS Server [2-24, 2-39](#)

M

Mozilla Firefox [1-1, 2-3, 2-5](#)

O

- Oracle 11g [3-3](#)
- Oracle Configuration [2-10 to 2-11](#)

P

- Platform Support [1-1](#)
- Postinstallation Configuration
 - JBoss [2-72 to ??](#)

WebLogic [2-75 to 2-78](#)

WebSphere [2-78 to 2-89](#)

Preinstallation Configuration

- JBoss [2-15 to 2-17](#)
- WebLogic [2-17 to 2-33](#)
- WebSphere [2-34 to 2-52](#)

Prerequisites, Software Configuration [2-4 to 2-7](#)

R

Repair Database [4-13](#)

Reporting

- Installation [3-10, 4-16](#)
- Options [5-9, 5-11, 5-13](#)
- Pre-Upgrade Tasks [4-15](#)
- Requirements [2-7, 2-8](#)
- Running the Installation Wizard [3-11](#)
- Upgrading [4-15](#)

Reports

- Moving from Development to Production Environments [5-5](#)
- Viewing in Excel Format [5-1](#)

RequestCenter Database [3-4](#)

Requirements, Hardware [2-7 to 2-8](#)

Roles for Accessing Reporting Features [5-3](#)

S

Schema Validation [4-12](#)

SchValidationLog Table [4-9, 4-11](#)

Service Portal

- Download Software [2-18, 2-34](#)
- Pre-Upgrade Tasks [4-6](#)
- Restarting [3-21](#)
- Running Installer [2-52](#)
- Upgrading [4-1](#)

Settings

- Browser [2-4](#)
- Browser Cache [4-15](#)

- Miscellaneous [2-7](#)
- SMTP Server [2-7](#)
- Software [2-4 to 2-7](#)
 - Requirements [2-3](#)
- SQL Server, Configuration [2-11](#)

T

- Tar Utility [2-34](#)
- Time Zones
 - Configuring [3-24](#)
 - Daylight Saving Time Not Supported [3-26](#)
- Typical Topology [2-2](#)

U

- Unzip Utility [2-7](#)
- Upgrade
 - Postupgrade Tasks [4-14](#)
 - Reporting Installation Wizard [4-16](#)
 - Service Portal [4-1](#)
- Upgrade Existing Database [4-8, 4-16](#)

V

- Validating Data [4-13](#)
- Validating Schema [4-12](#)
- Validation ErrorLevels [4-9](#)
- Validations, Understanding [4-9](#)
- Virtualization Policy [1-3](#)

W

- WebLogic
 - Application Server Information Worksheet [2-32](#)
 - Configuring JDBC Data Sources [2-27](#)
 - Configuring JMS Server [2-24](#)
 - Creating a Managed WebLogic Server [2-20](#)

- Installing Custom Java Libraries [2-19](#)
- Postinstallation Configuration [2-75 to 2-78](#)
- Preinstallation Configuration [2-17 to 2-33](#)
- Verifying Installation [2-77](#)

WebLogic Server

- Creating [2-20](#)
- Restarting [2-30](#)

Web Server Host, Requirements [2-8](#)

WebSphere

- Application Server Information Worksheet [2-50](#)
- Cluster Configuration [2-37](#)
- Configuring J2C Authentication Data [2-42](#)
- Configuring JDBC Data Sources [2-43](#)
- Configuring JMS Server [2-39](#)
- Configuring Virtual Host [2-38](#)
- Configuring Web Server [2-89](#)
- Installing Custom Java Library [2-35](#)
- Postinstallation Configuration [2-78 to 2-89](#)
- Preinstallation Configuration [2-34 to 2-52](#)
- Starting Service Portal Applications [2-88](#)
- Verifying Installation [2-88](#)

WebSphere Server

- Restarting [2-49](#)

Worksheet

- Database Information [2-13](#)
- JBoss [2-16](#)
- WebLogic [2-32](#)
- WebSphere [2-50](#)

X

- X-Window [2-7, 2-36, 2-53](#)

