

Suite

Installation Guide

April 2020

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Overview

The purpose of this document is to provide instructions for the proper setup of the software needed to run eCounsel, Secretariat, and SuperViewer using one of the following Web servers:

- Apache Tomcat Server 8.5 (as of Suite 8.11 SP7) for Microsoft Windows and UNIX/Linux (see page 3)
- Oracle WebLogic 11g and 12c Application Servers for Microsoft Windows and UNIX/Linux (see page 25)
- IBM WebSphere 8.5 Application Server for Microsoft Windows and UNIX (see page 33)

System Requirements

The operating system installed on the server must be one of the following (dependent on the operating systems supported by the Java application server):

- Microsoft Windows
- UNIX
- Linux

This installation does not **require** Internet Information Services (IIS). However, using IIS extends the security of Suite by allowing you to configure IIS to authenticate users before they are permitted access to a Website, a folder in the site, or even a particular document contained in a folder in the site.

Each of the supported Java application servers provides or supports a plug-in or method for redirecting requests and passing back responses through a Web server. Only IIS is described for use with the Apache Tomcat Server in this document.

Before You Begin

The following tips will help you start the process of installing Suite:

- This installation guide is written for Suite 8.11 SP7. Consult the latest *Suite Technical Overview* to view supported software changes that are available with the various service packs.
- Secretariat, eCounsel, and SuperViewer are all licensed products. You must obtain a license key from Mitrtech Software before using these products.
- For SuperViewer, you must be running Secretariat.
- If you are using an ORACLE database, ensure that the temporary table space allotted to Secretariat and/or eCounsel databases are at least 50-75 percent of the data table space size.
- If you will be using Crystal Reports, review “Configuring Third-Party Applications” on page 69.
- Exit all Microsoft Windows applications. We also recommend that you disable any antivirus applications that may be running.

Companion Programs

The components below are included on the Suite installation media. Installation instructions are included in this guide.

- **HotDocs Installation** will install HotDocs® Developer 2011. If you are installing Secretariat, this program can be installed in order to generate and publish custom documents in the Wizards and Reports modules. A single license for HotDocs Developer 2011 is included with the Secretariat license. It is optional and *separately licensed* for eCounsel. Contact Mitrastech's Implementation Services Group for licensing information. Included on the installation media, but not part of the installation program, are HotDocs templates for use in generating documents and reports from within Secretariat.
- **BusinessObjects Installation** will install an integration with SAP BusinessObjects Business Intelligence Platform for running Crystal Reports. When this premium feature is implemented, your company will be able to run all standard and custom Crystal Reports through Suite using SAP BusinessObjects Business Intelligence Platform.

Installing Suite

Overview

Web applications, regardless of the language or technology in which they are written, usually employ a Web server. Suite is no exception in this regard. The Web server component of the architecture is used to define and secure the Website for the application. This component hosts the Website and serves as a proxy for requests to the application.

Apache Tomcat

Apache Tomcat 8.5 is available for download from <http://tomcat.apache.org>.

Before You Begin

Copy the `.war` file from the `\tomcat` folder on the Suite installation media to the desktop, to allow you to rename the file. When the `.war` file is deployed, a directory is created and the files are extracted to it. The directory name will be the `.war` filename. For example: `suite8.war` will create a directory called `\suite8`. This name also will be the context name.

The directory name is significant because it is part of Suite's URL. In order to reuse a shortcut when the program has been upgraded, we recommend that the `.war` file be copied to the desktop and then renamed to remove the version number.

If you already have Tomcat and IIS installed or are installing Suite on a UNIX system, skip to "Deploying the `.war` File" on page 12.

. Change the paths in these instructions to match your Tomcat installation. You may want to review the JDK and Tomcat instructions contained here for consistency.

Apache Tomcat is an open source software implementation that has been released under the following license:

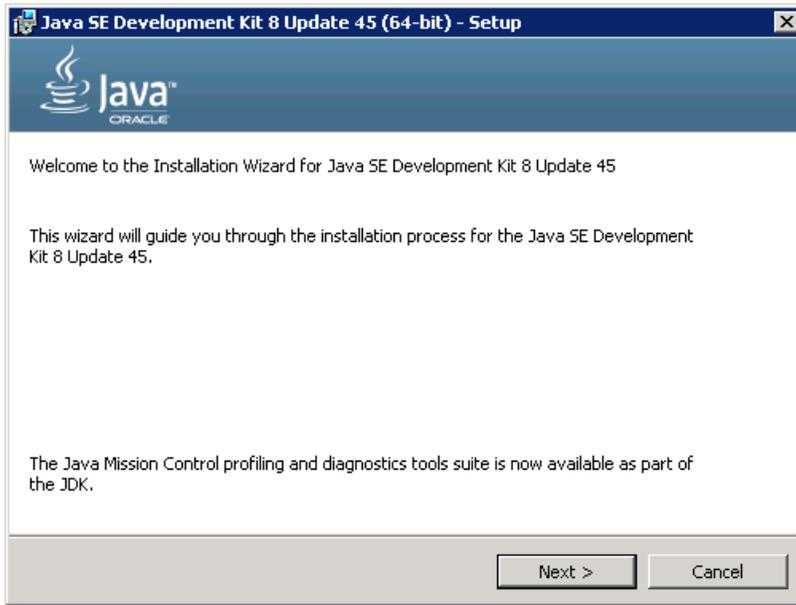
<http://www.apache.org/licenses/LICENSE-2.0>

Installing the Java Software Development Kit

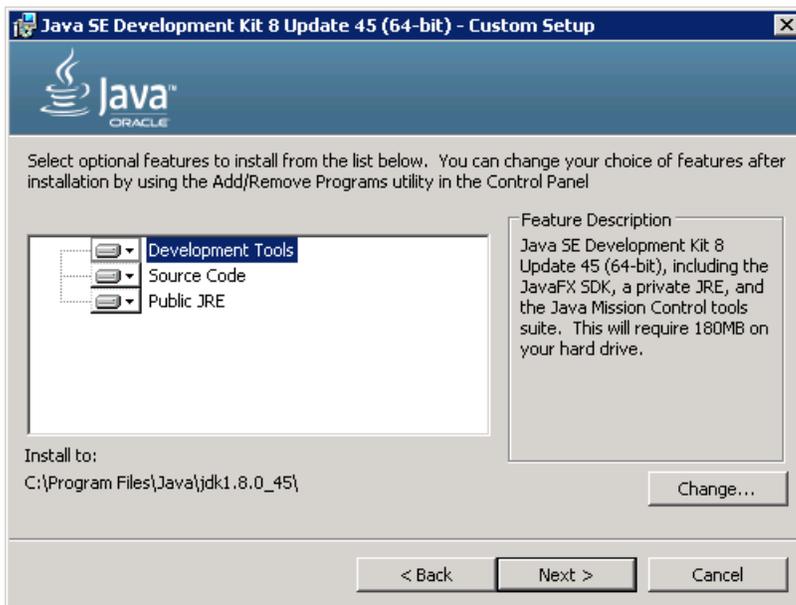
Apache Tomcat requires a Java Standard Edition Development Kit (JDK) to function on the server. JDK 8 is available from <http://oracle.com>. Select the version that is most compatible with your system (i.e., if you are deploying on a Microsoft Windows 2008 64-bit server, use the 64-bit version).

- !** The Apache Tomcat 8.5 installation automatically detects the Operating System version (32-bit or 64-bit) and installs the applicable version of Apache Tomcat. Therefore, it is imperative that you install the comparable version of the JDK on the system or errors will result.

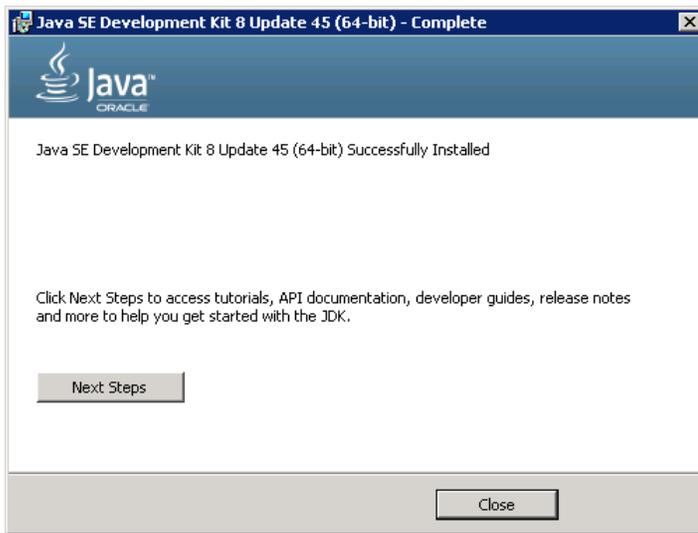
1. Download from <http://www.oracle.com> and double-click this file to start the installation process.
2. On the **Welcome** screen, click **Next**.



3. On the **Custom Setup** screen, note the destination directory and click **Next** to continue.



4. Accept the default settings for the remaining windows, and then click **Close** on the completion window.



Installing the Tomcat Application Server

Apache Tomcat 8.5 is available for download from <http://tomcat.apache.org>. The installation executable automatically detects if the system is 32-bit or 64-bit and installs the applicable server.

! You must have installed a compatible version of the JDK on the same system.

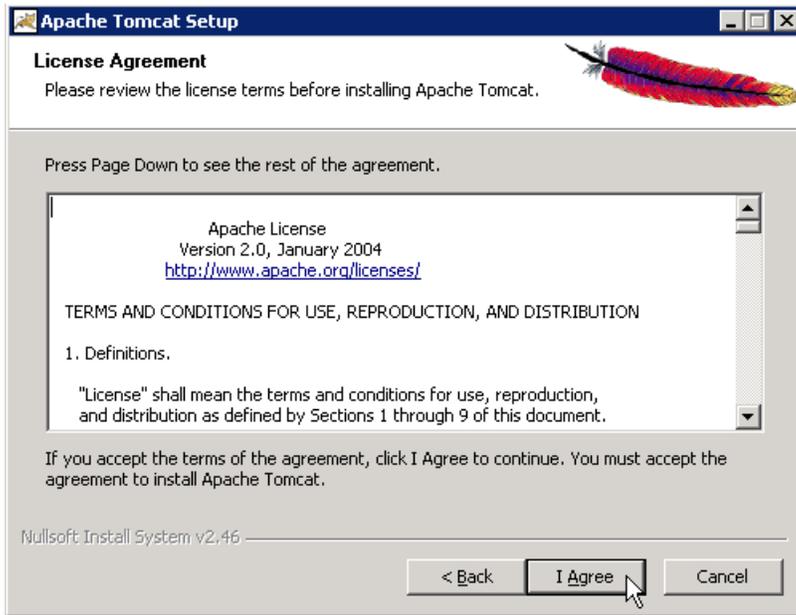
If you have a previous installation of Suite on a Tomcat application server and you are wanting to upgrade the version of Tomcat, download and install the updated version without removing your previous instance. See the section on *Upgrading the Tomcat Application Server* on page 11 for more information.

To Install the Tomcat Application Server:

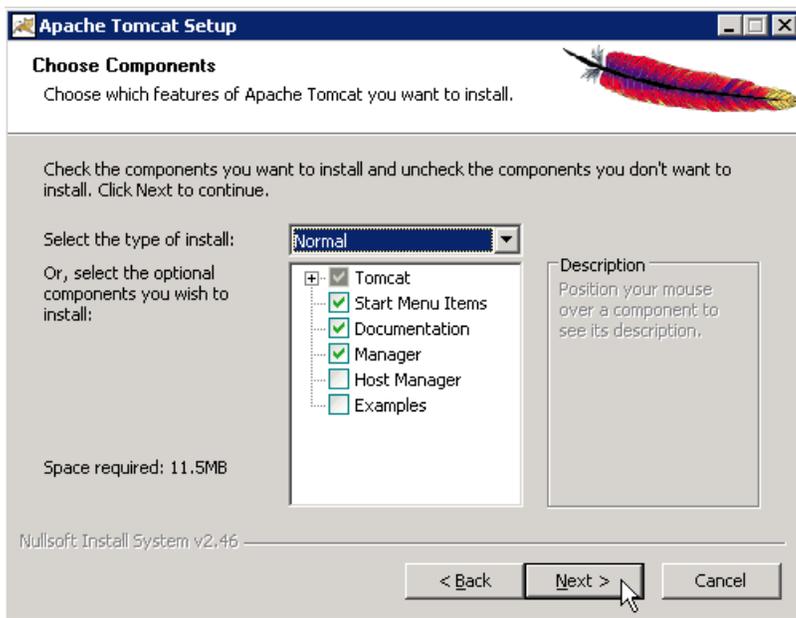
1. Download the Apache Tomcat installation file from <http://tomcat.apache.org>. Double-click this file to start the installation process, then click **Next** on the **Welcome** screen.



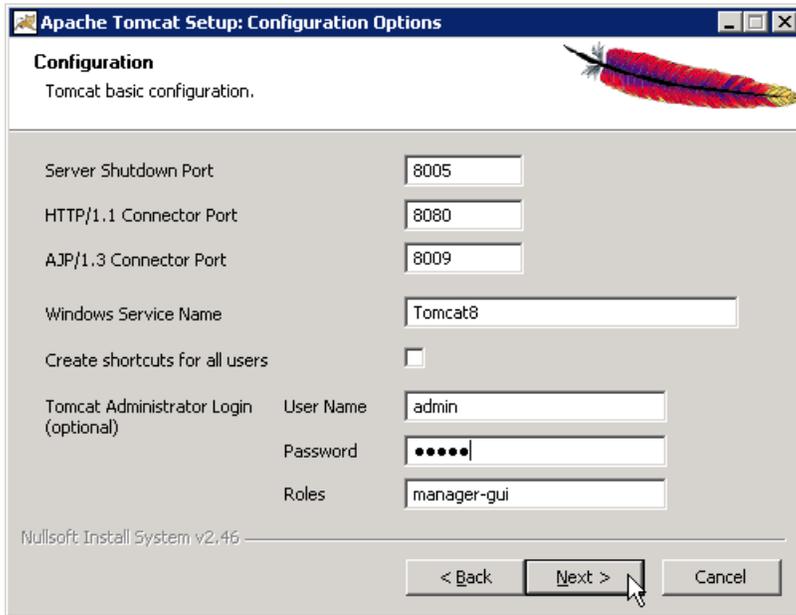
2. On the **License Agreement** screen, review the license agreement and click **I Agree** to continue.



3. On the **Choose Components** screen, accept the defaults and click **Next**.

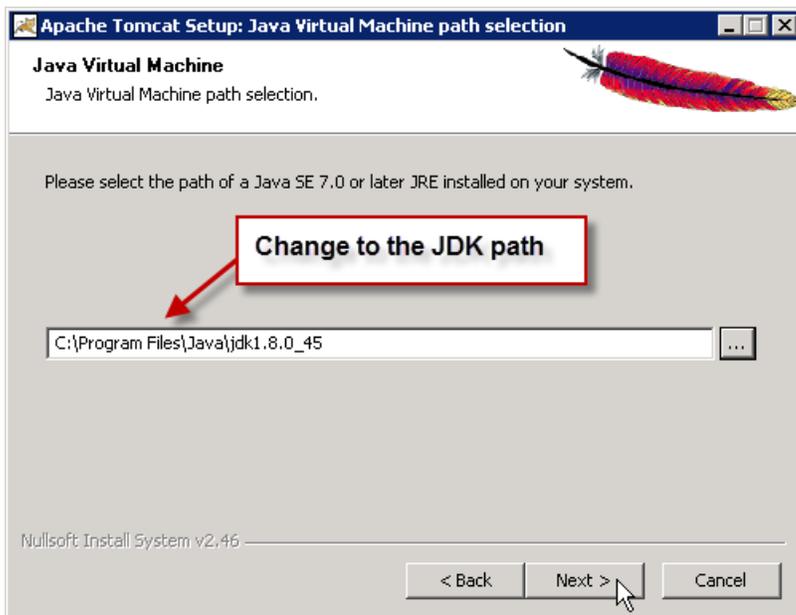


4. On the **Configuration** screen, create an administrative password. Do not leave the Password text box blank. You may want to ensure that no other service is using ports 8080 or 8009, which are Tomcat's default ports (use port 80 if you are not using the IIS server). Click **Next** to continue.

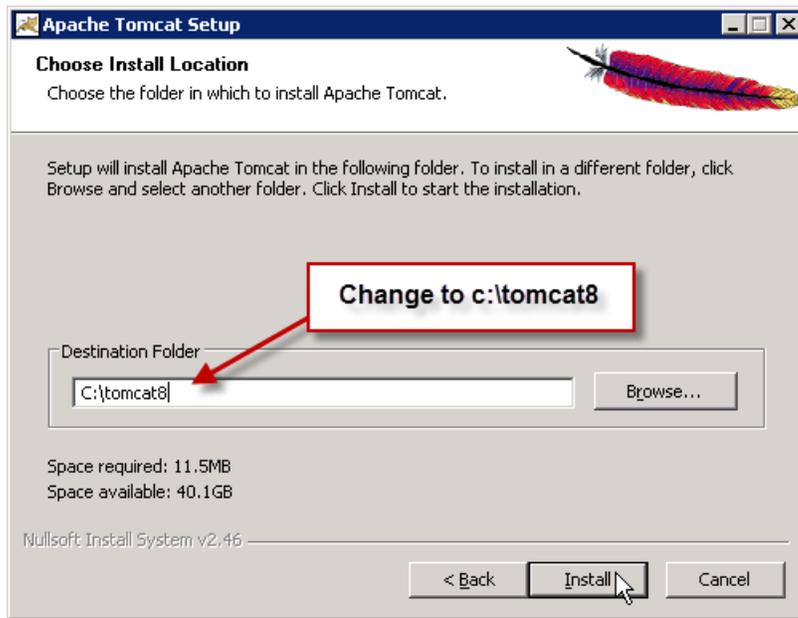


5. On the **Java Virtual Machine** screen, the Tomcat installation program will recognize the latest version of the JRE installed. Change this path to the JDK that you installed on page 3. Click **Install** to continue.

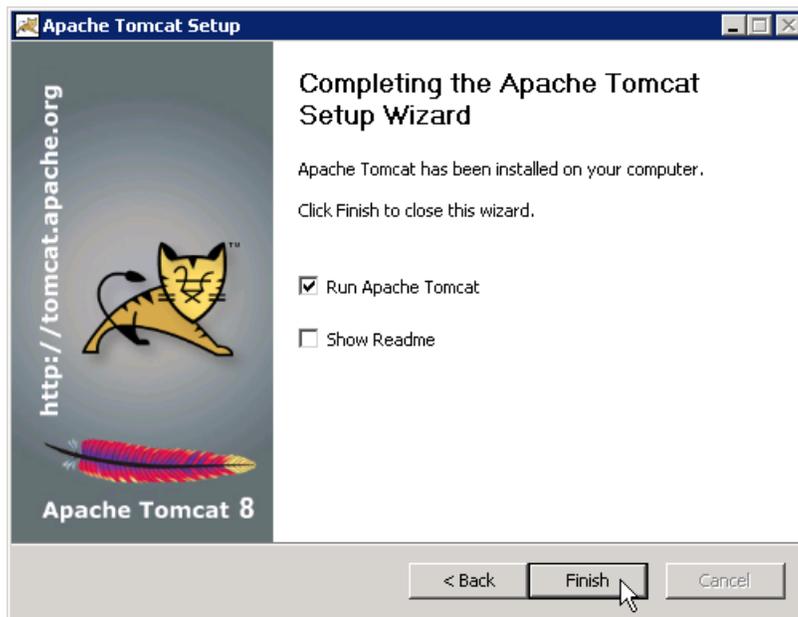
! Do *not* use the default JRE path that populates the field on the dialog box. Suite requires the use of the path to the JDK install.



6. On the **Choose Install Location** screen, change the destination folder to `c:\tomcat8` and click **Next** to continue.



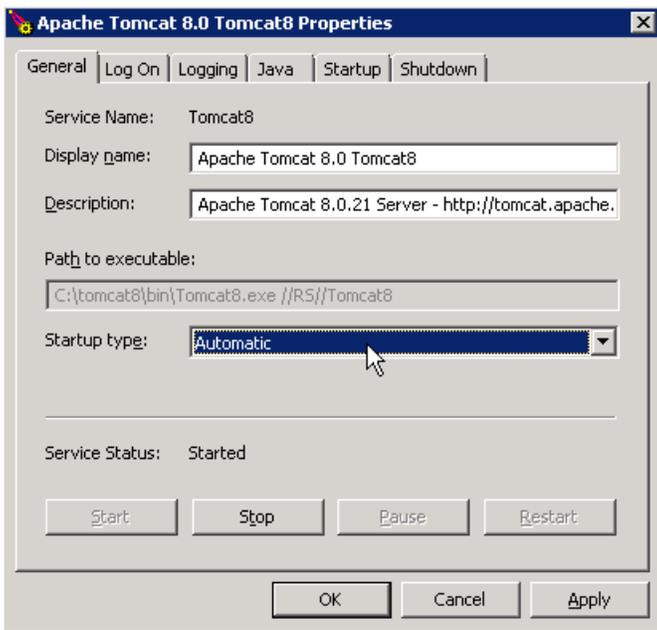
7. When the installation is complete, allow Tomcat to run and click **Finish**.



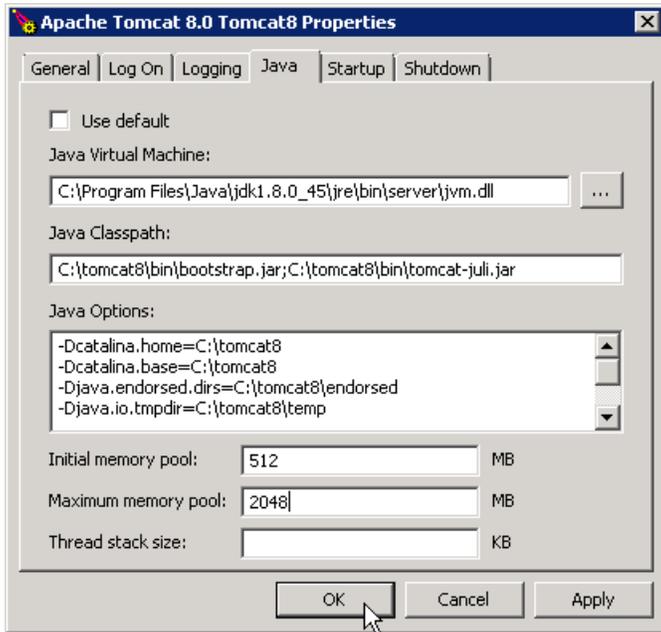
8. Right-click the Tomcat icon in the system tray and select *Configure* from the popup menu.



9. On the **General** tab on the **Apache Tomcat Properties** dialog box, change the startup type to *Automatic*.



- Running certain reports may exceed the computer's resource memory allocated to Tomcat. To increase the allocation amount, click the **Java** tab and clear the *Use default* checkbox if necessary. The number to enter in the Initial and Maximum memory pool text boxes depends upon the amount of memory available on the server. Mitratesh recommends at least 512 as a minimum and 2048 as a maximum.



- Click **Apply**.
- Navigate to the **C:\tomcat8\conf** directory and open the **web.xml** file with a text editor such as Microsoft Notepad. Add the following lines (indicated in red bold text) to the JSP servlet node:

```

<servlet>
  <servlet-name>jsp</servlet-name>
  <servlet-class>org.apache.jasper.servlet.JspServlet</servlet-class>
  <init-param>
    <param-name>fork</param-name>
    <param-value>>false</param-value>
  </init-param>
  <init-param>
    <param-name>xpoweredBy</param-name>
    <param-value>>false</param-value>
  </init-param>
  <init-param>
    <param-name>development</param-name>
    <param-value>>false</param-value>
  </init-param>
  <load-on-startup>3</load-on-startup>
</servlet>

```

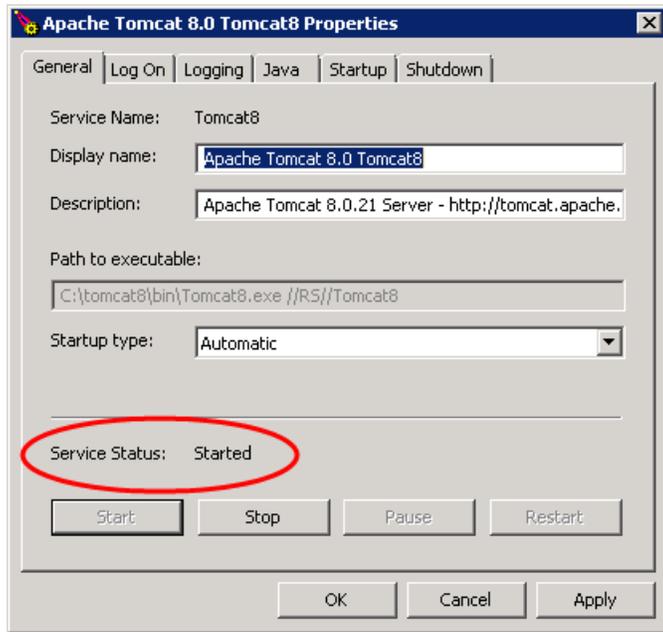
- Navigate to the **C:\tomcat8\webapps\manager\WEB-INF** directory and open the **web.xml** file with a text editor such as Microsoft Notepad. Locate the following lines in the file and change "52428800" to "73400320":

```

<!-- 50MB max -->
<max-file-size>73400320</max-file-size>
<max-request-size>73400320</max-request-size>

```

14. On the **Apache Tomcat Properties** dialog box, click on the **General** tab. Click **Stop**, and then **Start**. The Service Manager will restart Tomcat. When the service status on the **Apache Tomcat Properties** dialog box shows *Started*, click **OK** to close the window.



Upgrading the Tomcat Application Server

If you have a previous installation of Suite on a Tomcat application server and you are wanting to upgrade the version of Tomcat, download and install the updated version without removing your previous instance.

After you have installed the newer version of Apache Tomcat, you need to modify the OS Environmental Variables on the server. In Microsoft Windows, you can add variables by clicking the **Environmental Variables** button on the **Advanced** tab of the Control Panel's **System Properties** dialog box; on a Linux server, you can create the variables from a bash console.

1. Add the following environment variable (if you are running multiple instances of Tomcat on the host, see the information in Step 2):

```
CATALINA_HOME = <Path>
```

Where *<Path>* is the location of the new instance. For example:

```
CATALINA_HOME=/opt/tomcat8
```

2. If you are running multiple instances of Tomcat on a single host, add the following environment variable (this variable is optional if you are running a single Tomcat instance on the host, in which case the variable will default to CATALINA_HOME):

```
CATALINA_BASE = <Path>
```

Where *<Path>* is *../tomcat_instance1* or *../tomcat_instance2* directory as appropriate for each instance.

Set the CATALINA_HOME variable to the common Tomcat installation whose files will be shared between the two instances.

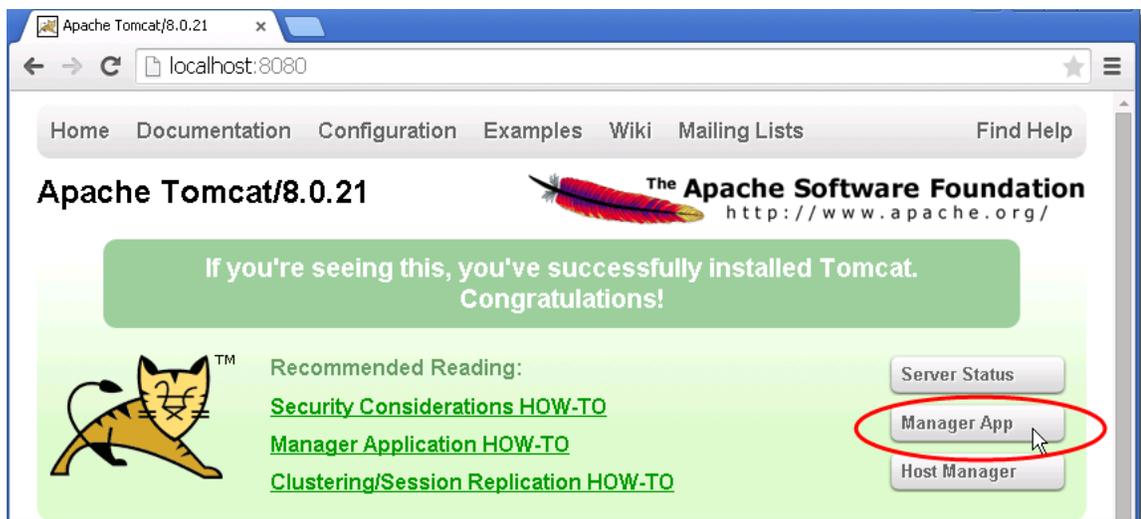
Deploying the .war File

A **.war** file is located on the installation media under `\tomcat`. When this file is deployed, a directory is created and the program files are extracted to it. The directory's name will be the **.war** filename. For example: **suite8.war** will create a directory called `\suite8`. The name also becomes the context name.

- i** Mitratesh recommends that the **.war** file be copied to the Microsoft Windows Desktop and then renamed to remove the version number. This renaming will allow you to reuse the URL shortcut when the program has been upgraded.

To Deploy the .war File:

1. Launch the Tomcat Administrative Console (in a Web browser, type <http://localhost:<Port>/> on the machine that is running Tomcat, where `<Port>` is the port number used when installing Tomcat, typically 8080). Click the **Manager App** button on the left pane of the Tomcat console page.



2. Log in using the admin account and password specified during installation.
3. Scroll down to the *Deploy* area, and then go to the *WAR files to deploy* area. Click the **Browse** button; navigate to the location of the **.war** file, then click **Deploy**.



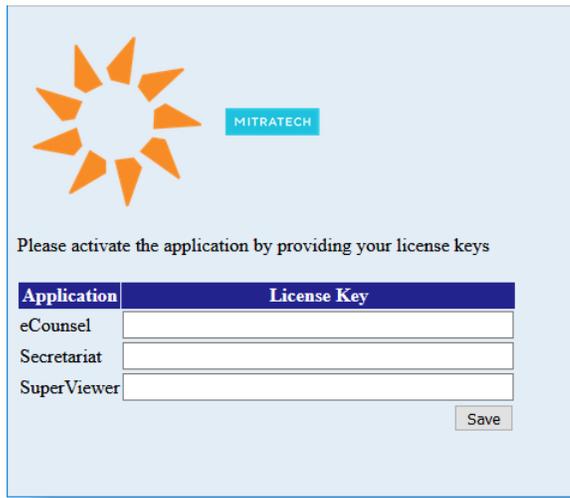
- When the installation has completed, the Tomcat server will automatically start the application. Verify that the `.war` file was successfully deployed by clicking the context path. This action will take you to the directory list for the Suite application on the server.

The screenshot shows the Tomcat Web Application Manager interface in a browser window. The address bar displays `localhost:8081/manager/html`. The page features the Apache Software Foundation logo and the Tomcat cat logo. The main heading is "Tomcat Web Application Manager". Below this, there is a message box indicating "Message: OK". A navigation bar includes links for "List Applications", "HTML Manager Help", "Manager Help", and "Server Status". The primary section is titled "Applications" and contains a table with the following data:

Path	Version	Display Name	Running	Sessions	Commands
/	None specified	Welcome to Tomcat	true	0	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes
/docs	None specified	Tomcat Documentation	true	0	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes
/legalhold3	None specified	Bridgeway Legal Hold 3.2.5	true	0	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes
/manager	None specified	Tomcat Manager	true	1	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes
/suite8	None specified	Bridgeway Suite 8.9.2	true	0	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes

A red box with an arrow points to the `/suite8` path in the table, with the text: "Click the suite8 context path link to open the directory list".

5. Click the [\(with options\)](#) link next to [eCounsel](#) or [Secretariat](#). If the Mitrtech application license key page opens, the `.war` file was deployed successfully.



Application	License Key
eCounsel	<input type="text"/>
Secretariat	<input type="text"/>
SuperViewer	<input type="text"/>

Save

Configuring UTF-8 Support

In order to support international characters in advanced search, the Java application server must be configured to support single byte UTF-8 (8-bit UCS/Unicode Transformation Format). In addition, the database also must support UTF-8 and must be converted if needed.

To Configure Tomcat to Support UTF-8:

1. Open Notepad or another text editing program.
2. Click **File** and select *Open*.
3. On the **Open** dialog box, browse to the following location:

`<Install>\conf`

where *<Install>* is the installation directory for the Tomcat Java Application server. For example:

`C:\tomcat8\conf`

4. In the Files of type field, select *All Files*.
5. Select the `server.xml` file.
6. Click **Open**.
7. Add the following property to the HTTP or HTTPS connector element in the file:
`URIEncoding="UTF-8"`
8. Click the **File** menu and select *Save*.
9. Restart the Web service.

Configuring i-net Server Header for Tomcat 8.5 Support

Starting with Apache Tomcat 8.5.3, Tomcat no longer sets the Server attribute by default. If set, the value for this attribute overrides any Server header set by a web application. If not set, any value specified by the application is used. If the application does not specify a value, then no Server header is set. The result is that when users run an i-net report, they receive an Apache Tomcat error report stating HTTP Status 404, the requested resource is not available.

To set the Server header for the http response, add the *server* attribute to the connector in the `server.xml` file.

To Configure Tomcat to set the Server Header:

1. Open Notepad or another text editing program.
2. Click **File** and select *Open*.
3. On the **Open** dialog box, browse to the following location:

`<Install>\conf`

where *<Install>* is the installation directory for the Tomcat Java Application server. For example:

`C:\tomcat8\conf`

4. In the Files of type field, select *All Files*.
5. Select the `server.xml` file.
6. Click **Open**.
7. Add the following attribute to the HTTP or HTTPS connector element in the file:

```
server="TestServer"
```

The value "TestServer" is only for example; the administrator can set the parameter to any value.

8. Click the **File** menu and select *Save*.
9. Restart the Tomcat server.

Configuring IIS for Tomcat

 If you are not using IIS, skip to "Configuring Suite" on page 41.

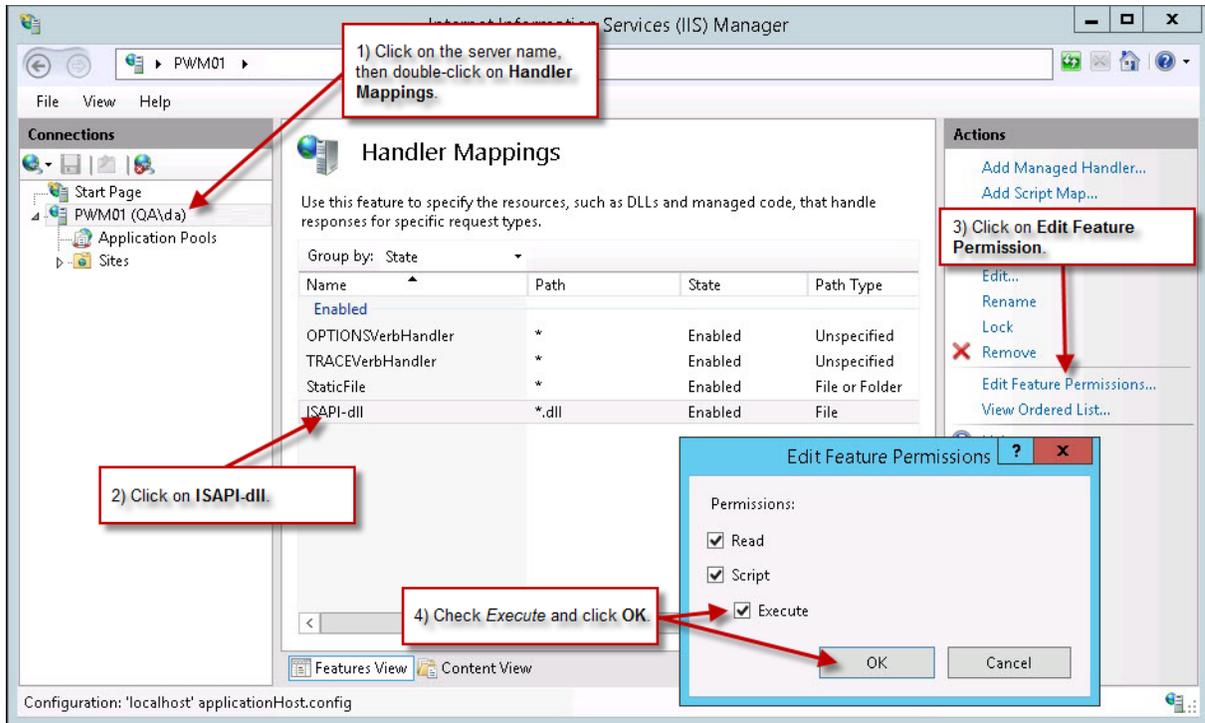
Configuring Internet Information Services (IIS) 7.x on a Windows 2008 Server or IIS 8.x on a Windows 2012 Server has the following steps:

Step	Description	Page
1	Configure the ISAPI Redirector	16
2	Configure security on application folders	17
3	Configure the default application pool	19
4	Add an ISAPI filter to IIS for Tomcat	21
5	Add a Jakarta application to IIS	23
6	Restart IIS	24
7	Test the configuration	24

! When installing the Web Server (IIS) component on a Windows Server 2012, you must install the Application Development (ISAPI Extensions and ISAPI Filters) role services to access the ISAPI filters. These features are not installed by default.

If the ISAPI features were not initially installed, you can install them in Server Manager, in the **Add Roles and Features Wizard**. They are found under **Web Server > Application Development > ISAPI Extensions and ISAPI Filters**.

Also, the default ISAPI-dll handler mapping is not enabled by default. Change the access to *Execute* to enable it.



You may need to re-apply any Microsoft Windows Service Packs after configuring IIS.

To Configure the ISAPI Redirector:

1. Open Microsoft Windows Explorer on the machine on which IIS is installed, navigate to the **C:\inetpub** subdirectory and create a subfolder called **suite**.
2. Copy the appropriate **isapi_redirect.dll** from the Tomcat install folder on the installation media into the **C:\inetpub\suite** folder.

! If you have deployed the ISAPI Redirector on the same system previously and registered the DLL file, remove the key (typically located at **HKEY_LOCAL_MACHINE\SOFTWARE\Apache Software Foundation**) from the Windows Registry. The current implementation uses a properties file to specify the settings at the time the file is executed.

3. Copy the **isapi_redirect.properties** file from the Tomcat install folder on the installation media into the **C:\inetpub\suite** folder.
4. Open the **isapi_redirect.properties** file using Microsoft WordPad or Notepad. Change the "log_level"="info" text to "log_level"="debug" if needed to troubleshoot the integration.

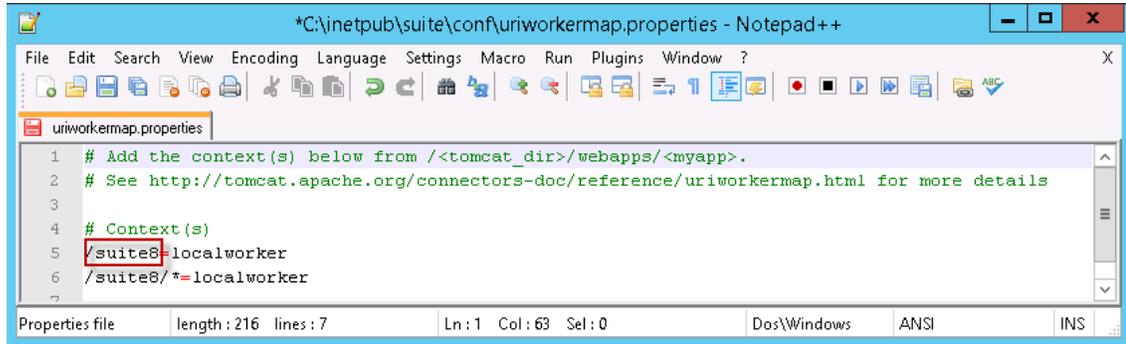
5. Create a **conf** subdirectory under **C:\inetpub\suite** and copy the **workers.properties** and **uriworkermap.properties** files from the Tomcat install folder on the installation media into the **C:\inetpub\suite\conf** subdirectory.
6. Open the **conf\uriworkermap.properties** file using Microsoft WordPad or Notepad. This file should contain information to tell IIS which requests to forward directly to Tomcat. For example:

```

/<ContextName>=localworker
/<ContextName>/*=localworker

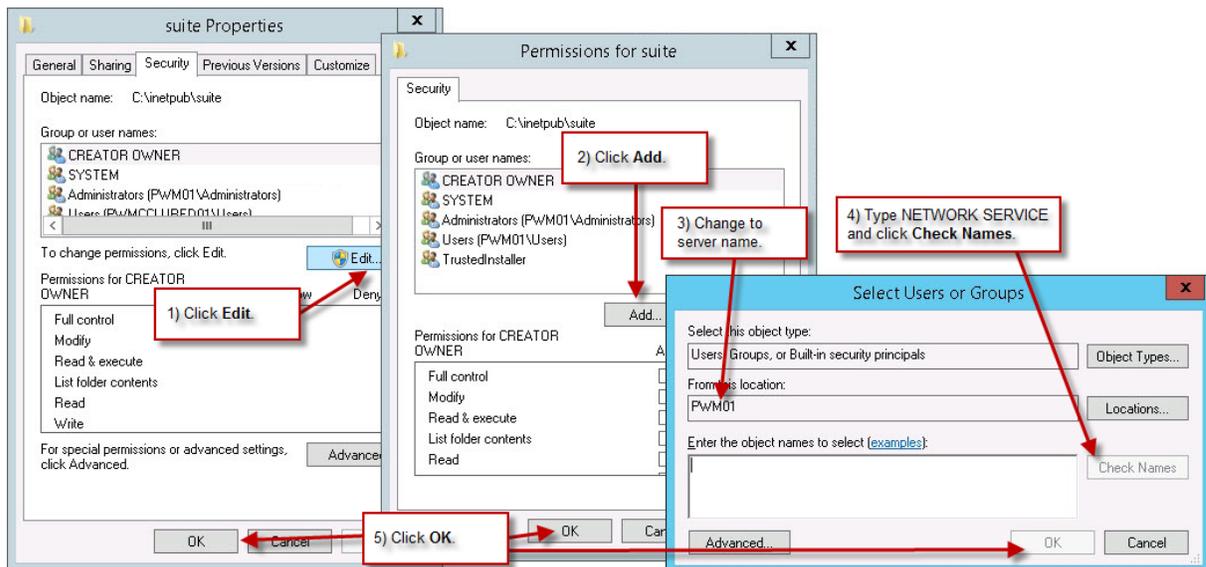
```

where **<ContextName>** is the name of the deployment of the application.

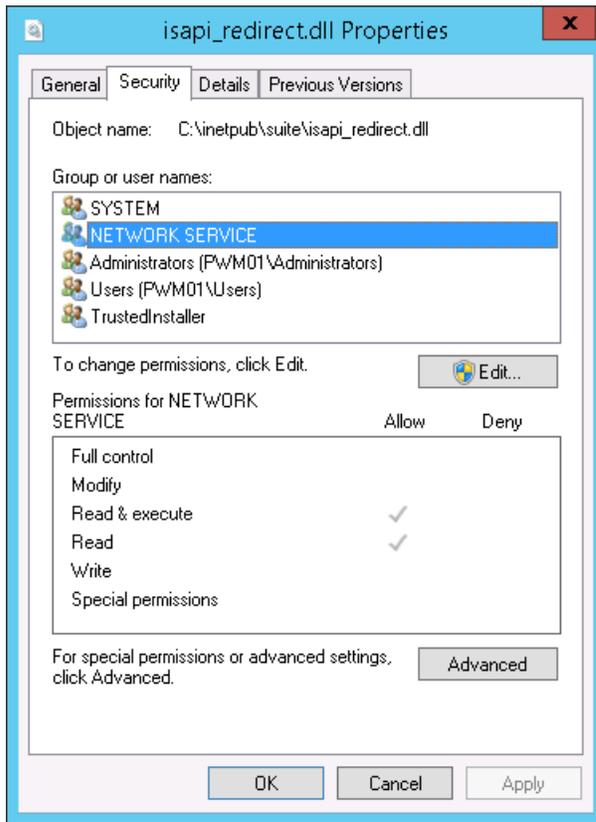


To Configure Security on Application Folders:

In order for the Website to be redirected using IIS, you must add the proper account permissions to the folder in which the ISAPI Redirector is located. Use the **Security** tab on the **Properties** dialog box to add the **NETWORK SERVICE** account for the following **C:\inetpub\suite** subdirectory with **Read** and **Read & execute** permissions.

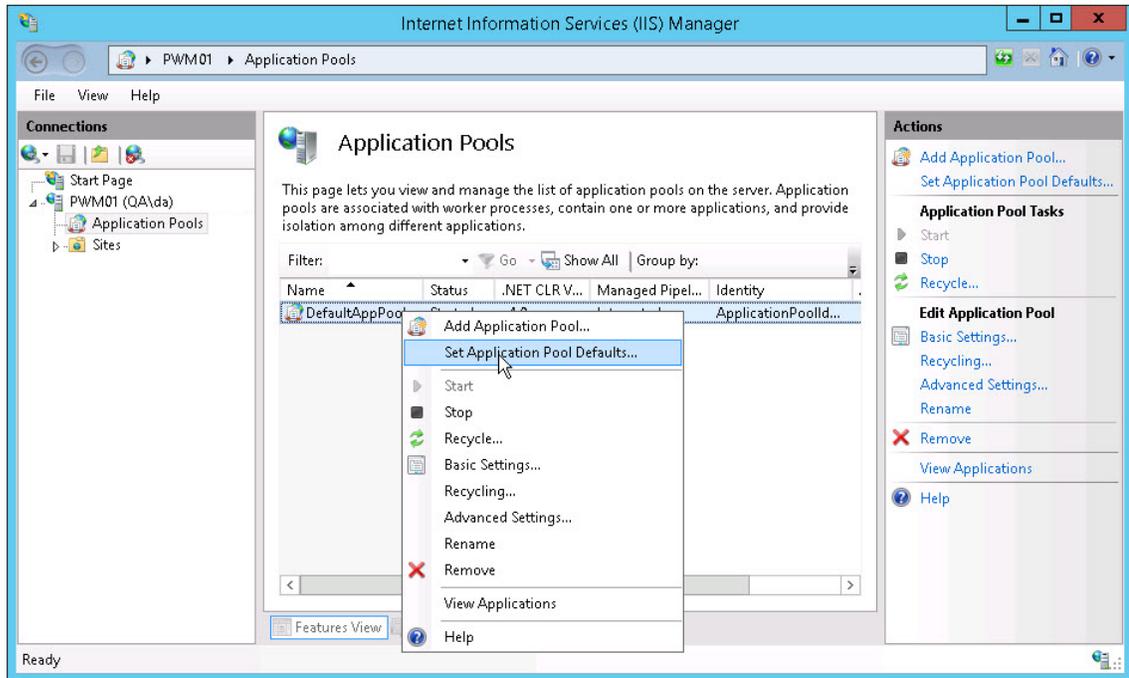


Verify that the `C:\inetpub\suite\isapi_redirect.dll` file inherits the account security from the folder. Restart Apache Tomcat when you are finished.

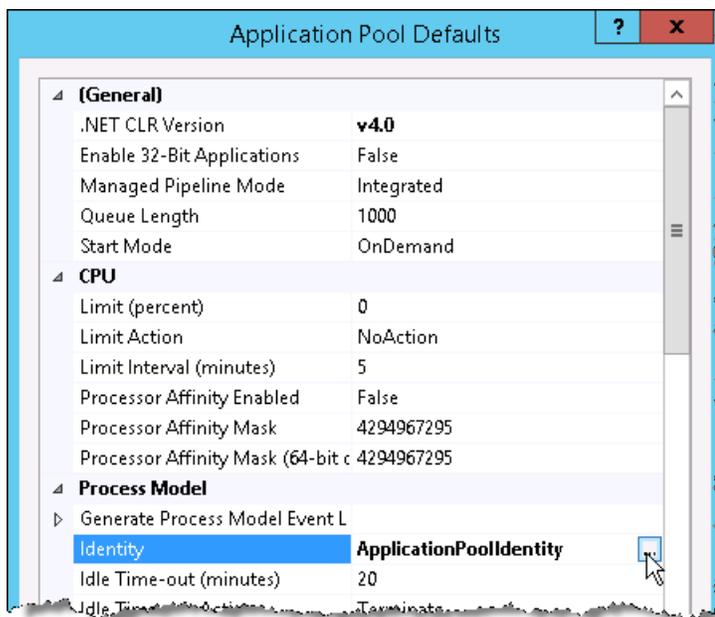


To Configure the Default Application Pool:

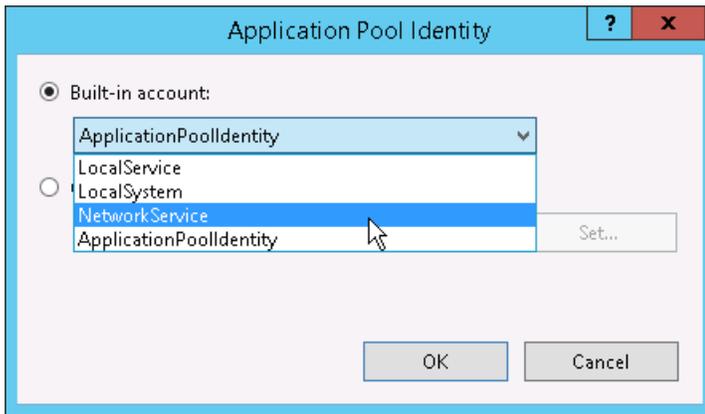
1. Click on the Windows **Start** menu, select *Administrative Tools*, then select *Internet Information Services (IIS) Manager*.
2. On the **Internet Information Services (IIS) Manager** window, navigate to the **Application Pools** screen.
3. Right-click on the DefaultAppPool entry, and select *Set Application Pool Defaults*.



4. On the **Application Pool Defaults** dialog box, click in the Identity field, and then click the  button to the right of the Identity field.

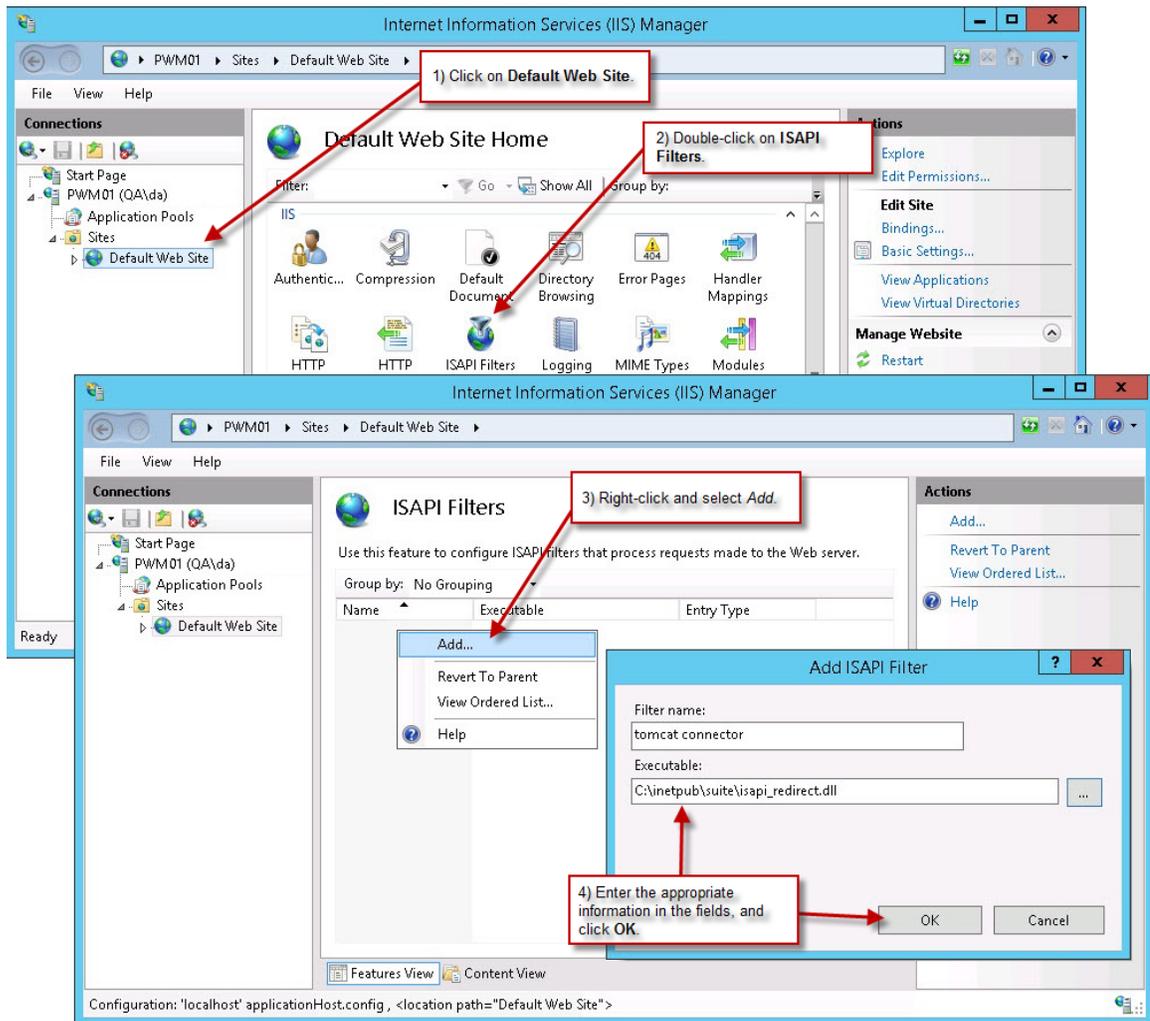


5. On the **Application Pool Identity** dialog box, select the *NetworkService* built-in account, and click the **OK** button.

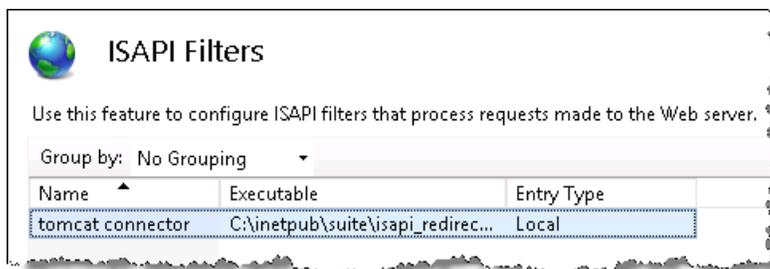


To Add an ISAPI Filter to IIS:

1. On the **Internet Information Services (IIS) Manager** window, navigate to the **Filter Properties** dialog box (see the examples below) and enter the following in the fields:
 - Filter Name – Enter `tomcat connector`.
 - Executable – Enter the path to the `isapi_redirect.dll` file (typically, `C:\inetpub\suite\isapi_redirect.dll`).

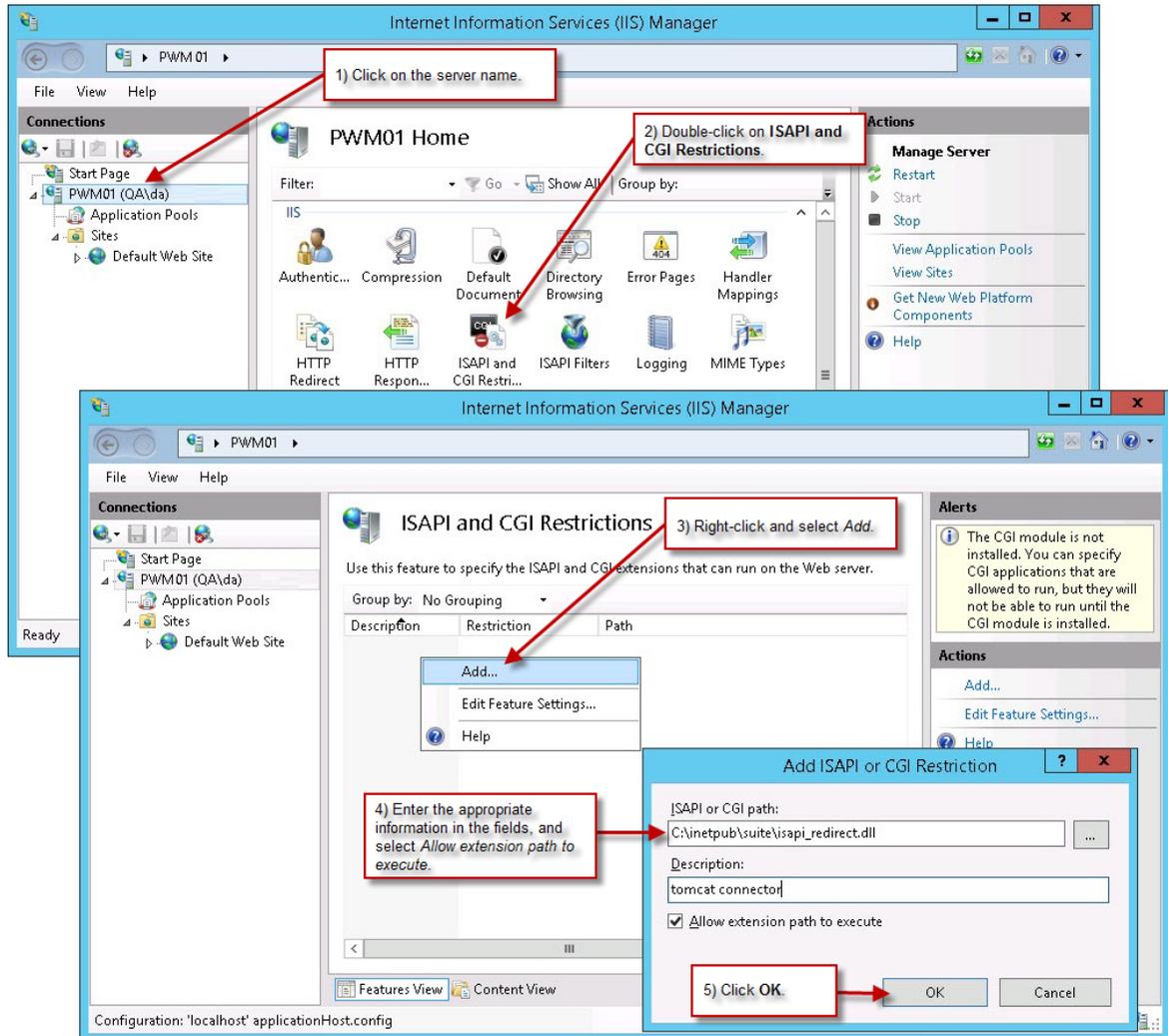


The entry below should now be located in the **ISAPI Filters**.



2. On the **Internet Information Services (IIS) Manager** window, navigate to the **ISAPI and CGI Restrictions** dialog box (see the example below) and enter the following in the fields:

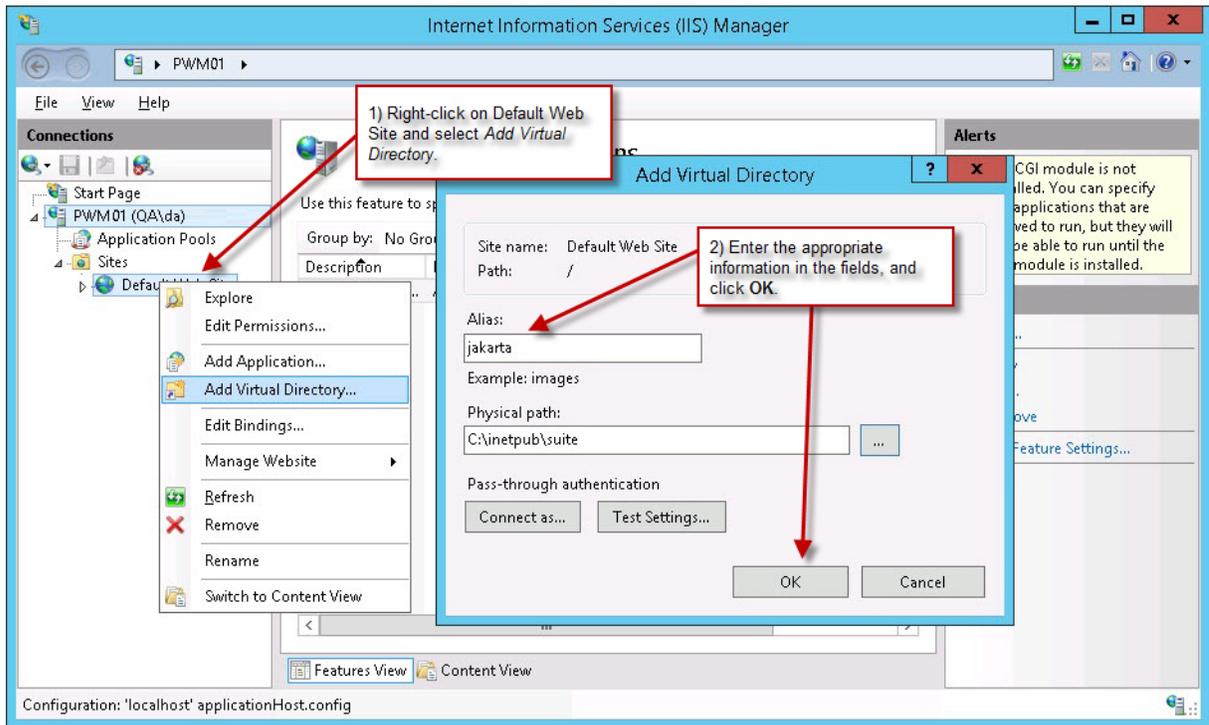
- ISAPI or CGI path – Enter the path to the **isapi_redirect.dll** file (typically, **C:\inetpub\suite\isapi_redirect.dll**).
- Description – Enter **tomcat connector**.
- Select **Allow extension path to execute**



To Add a Jakarta Application to IIS:

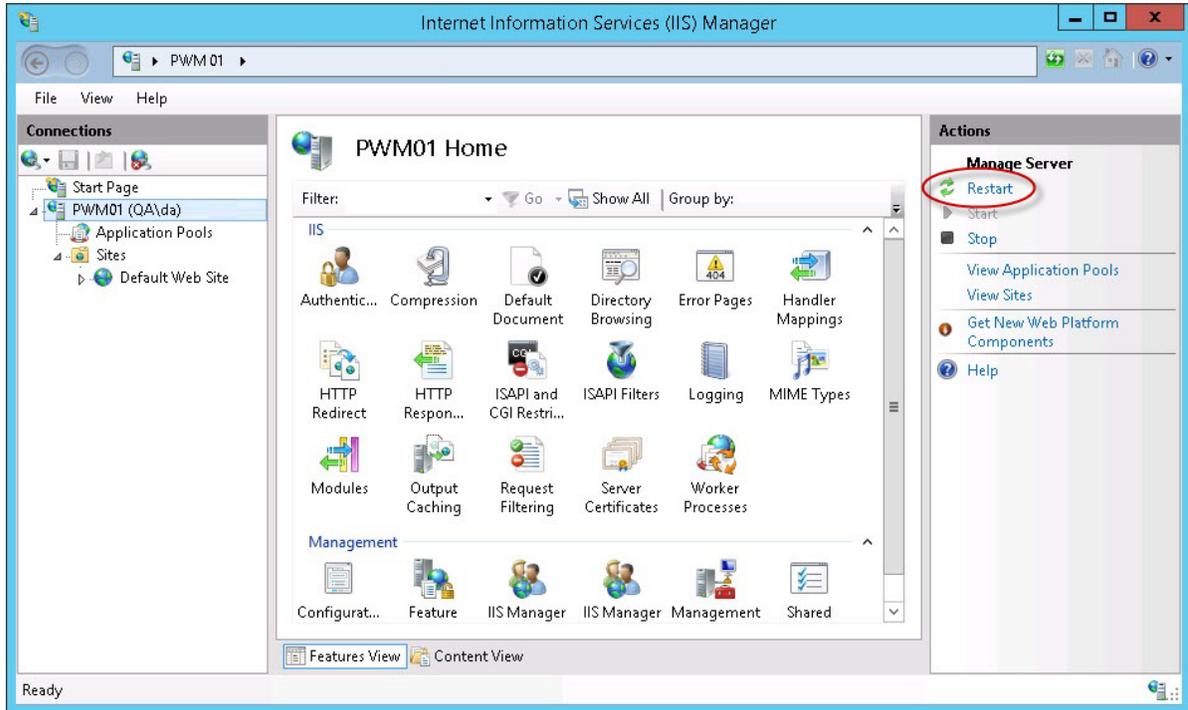
On the **Internet Information Services (IIS) Manager** window, navigate to the **Add Virtual Directory** dialog box (see the example below) and enter the following in the fields:

- Alias – Type jakarta.
- Physical path – Enter the path to the directory that contains the **isapi_redirect.dll** file (typically, **C:\tomcat8\iis**). The directory location must be entered completely.



To Restart IIS:

On the **Internet Information Services (IIS) Manager** window, click on the server name, then click the **Restart** link on the Actions pane.



! Be aware that restarting IIS will terminate all active Web applications including mail services.

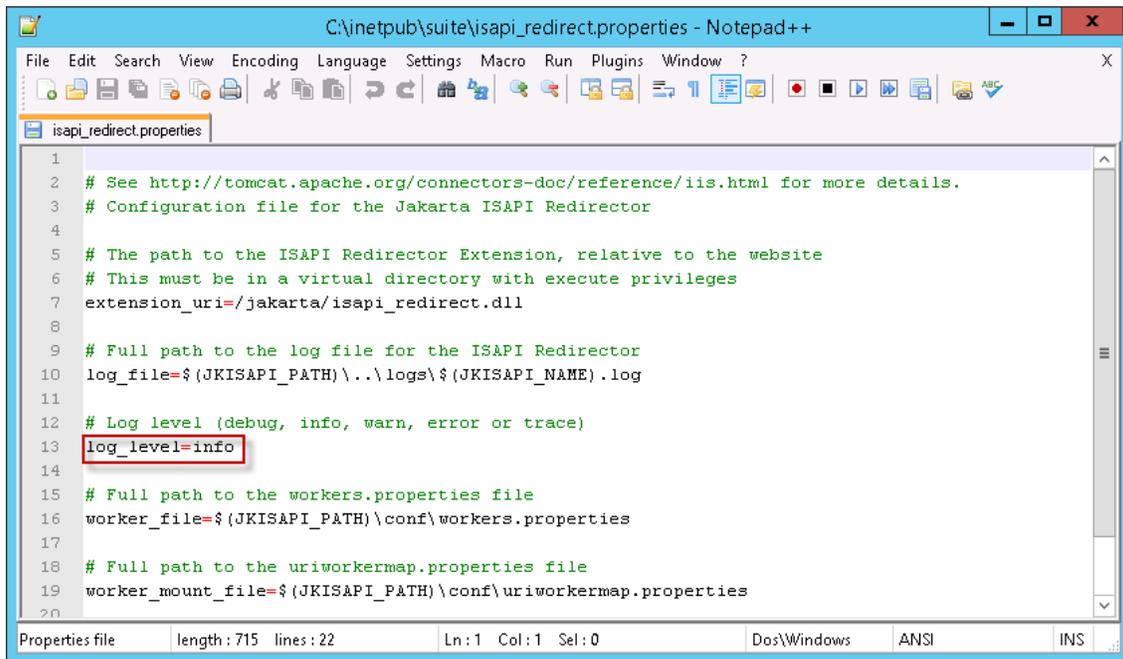
To Test the Configuration:

Open a Web browser to the following address:

<http://localhost/<Context>>

where *<Context>* is the name of the deployed **.war** file on Apache Tomcat. If the Suite application appears, the Website is being routed through IIS.

- ❗ Once the Suite application is running, open the `C:\inetpub\suite\isapi_redirect.properties` file using Microsoft WordPad or Notepad. Change the `"log_level"="debug"` text to `"log_level"="error"` and save the file, then restart IIS.



```
C:\inetpub\suite\isapi_redirect.properties - Notepad++
File Edit Search View Encoding Language Settings Macro Run Plugins Window ?
isapi_redirect.properties
1
2 # See http://tomcat.apache.org/connectors-doc/reference/iis.html for more details.
3 # Configuration file for the Jakarta ISAPI Redirector
4
5 # The path to the ISAPI Redirector Extension, relative to the website
6 # This must be in a virtual directory with execute privileges
7 extension_uri=/jakarta/isapi_redirect.dll
8
9 # Full path to the log file for the ISAPI Redirector
10 log_file=${JKISAPI_PATH}\..\logs\${JKISAPI_NAME}.log
11
12 # Log level (debug, info, warn, error or trace)
13 log_level=info
14
15 # Full path to the workers.properties file
16 worker_file=${JKISAPI_PATH}\conf\workers.properties
17
18 # Full path to the uriworkermap.properties file
19 worker_mount_file=${JKISAPI_PATH}\conf\uriworkermap.properties
20
Properties file length: 715 lines: 22 Ln: 1 Col: 1 Sel: 0 Dos\Windows ANSI INS
```

- ❗ You are now ready to configure Suite. Go to page 41 for more information.

Oracle WebLogic Application Server

Before You Begin

This document assumes that the WebLogic Application Server Version 12c is installed in the default directory. If a different directory was used, adjust the instructions accordingly.

Deploying the .war File

To Deploy the .war File on WebLogic 12c:

1. Prior to deploying the war file, verify that a managed server or cluster exists to be used as a deployment target. Do not deploy to an administration server.
2. Create a staging area to stage the deployment files. The staging area must be in a location that can be accessed by both the WebLogic Administration Console and every managed server in the cluster. For example, `<Oracle_Home>\user_projects\domains\<myDomain>\deployments\` where:
 - `<Oracle_Home>` is the Oracle home directory, typically `C:\Oracle\Middleware\Oracle_Home`
 - `<myDomain>` is the name of the domain under which you created your server
3. Create a directory called `suite8` in the staging folder you created in the previous step.

4. Locate the **Suite.war** file in the appropriate subdirectory under **WebLogic** on the installation media.
5. Extract the contents of the **Suite.war** file to the **suite8** directory that you created. After the files have been extracted, the **suite8** directory should contain around 10,000 files and 1,000 directories.
6. If you are using a clustered WebLogic environment with nodes on different machines, follow the configuration instructions in this step. If the nodes are on the same machine or if you are using a standalone deployment, skip this step.

Run a command prompt as an administrator and create a symbolic link by typing the following command:

```
mklink /D <SymbolicLinkPath> <\\HostName\FolderName>
```

Where:

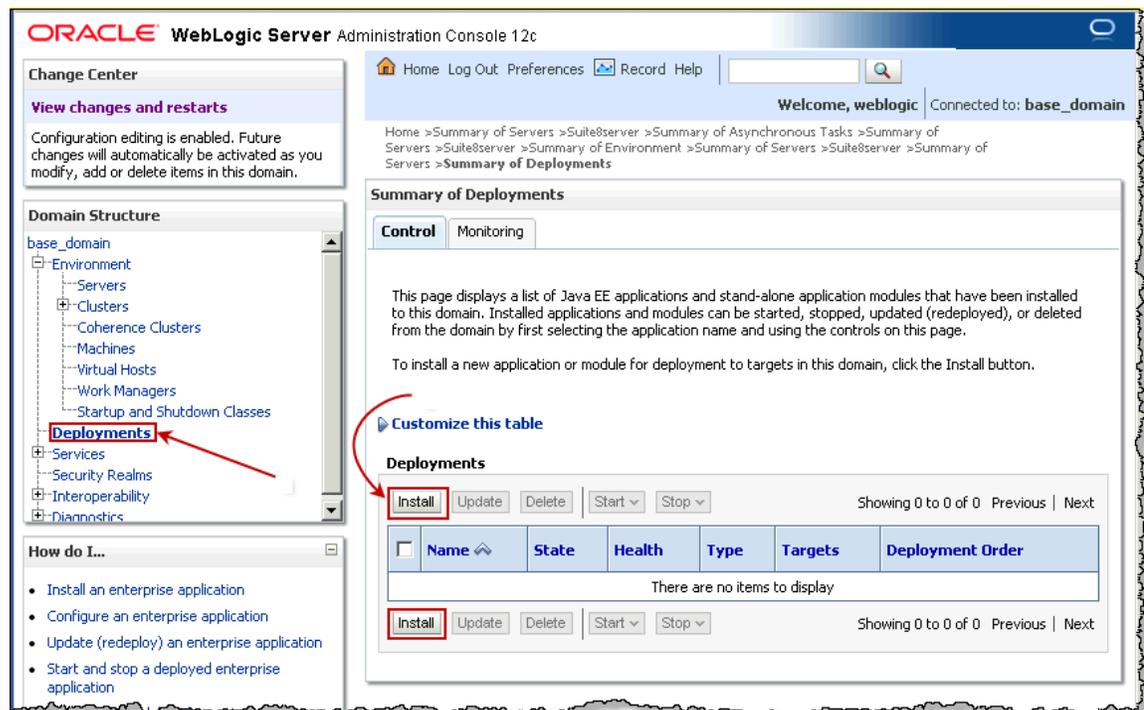
<SymbolicLinkPath> specifies the new symbolic link, which is the path to the node's shared folder

<\\HostName\FolderName> specifies the relative path to the shared folder (from Step 2) to which the new symbolic link refers

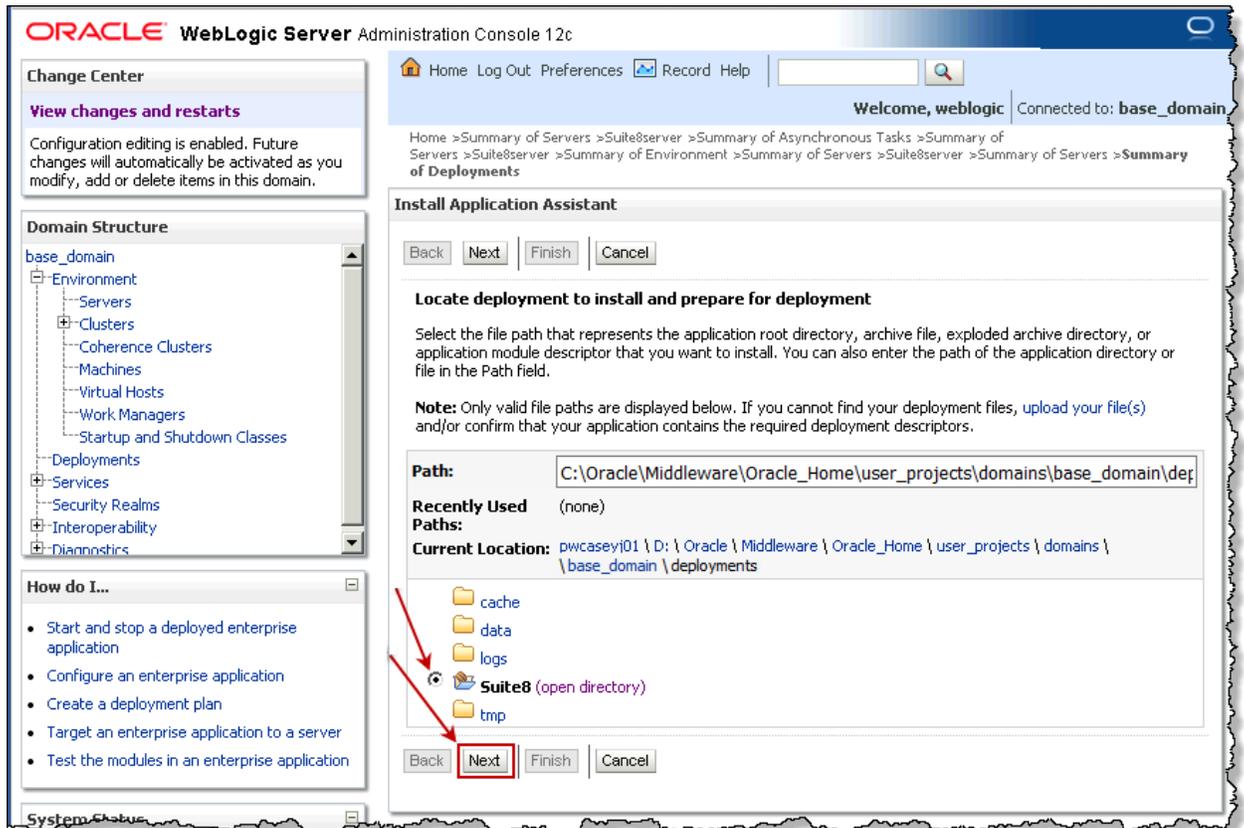
For example, mklink /D C:\deployments [\\10.1.0.111\deployments](#)

Repeat this step for every cluster node.

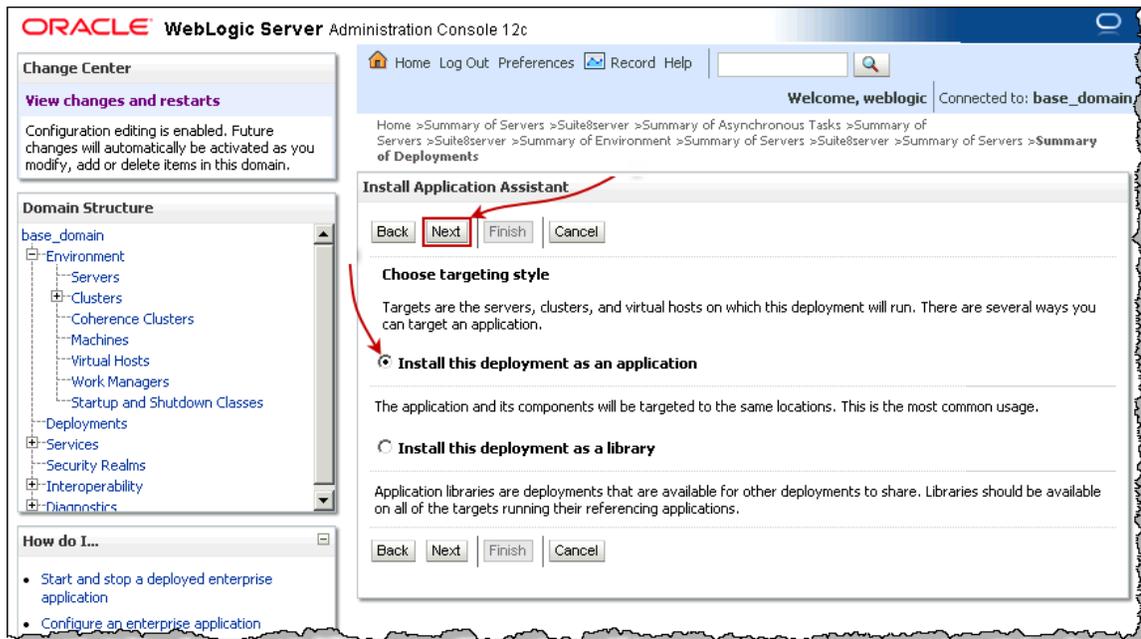
7. Log in to the WebLogic Administrative Console, and expand the **Domain Structure** hierarchy to **Deployments**.
8. Click **Lock & Edit**, and then click **Install**:



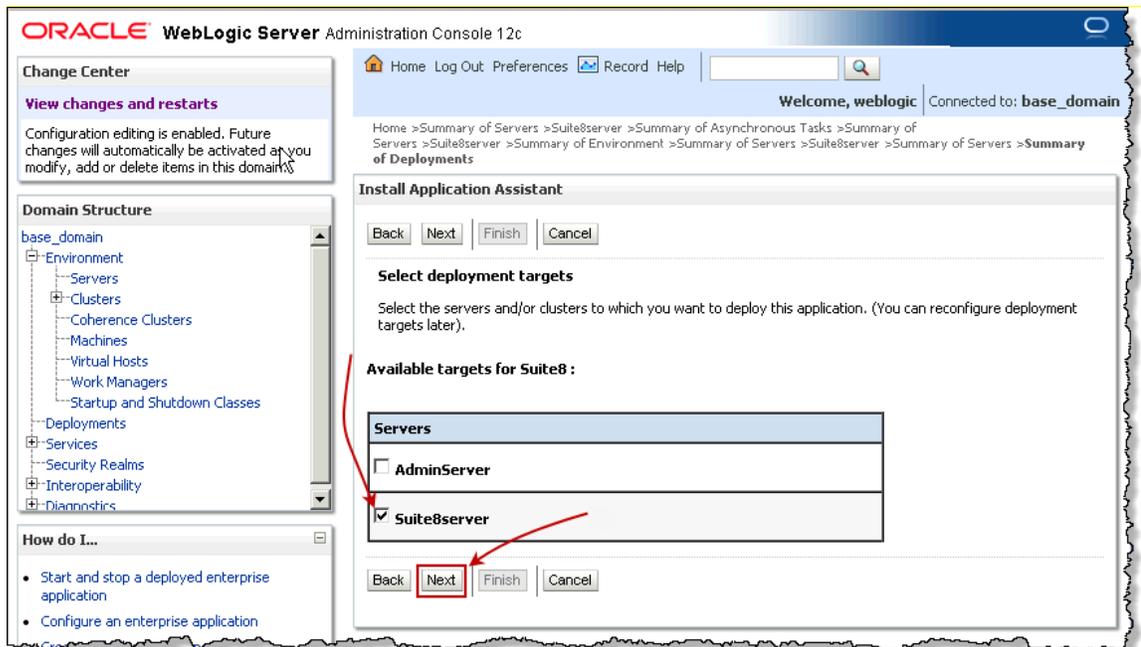
9. In the **Install Application Assistant** screen, navigate to the staging area you created in Step 4 on page 26. Click the *suite8* radio button, then click **Next**.



10. Confirm that *Install this deployment as an application* is selected, then click **Next**.



11. Select the server (or cluster if you are deploying on an environment with clusters) on which you want to deploy (see Step 1 on page 25) and then click **Next**. For more information on deploying to a clustered environment, see *Appendix C: Clustering the Suite Server* on page 131.



12. Select *I will make the deployment accessible from the following location* and type the path of the shared folder in step 2. If you are using a clustered WebLogic environment with nodes on different machines, type

the path of the symbolic link created in step 6 (for example, C:\deployments\suite8). Click **Finish** and **Activate Changes**. The context name indicated below will be the name visible to users in the Suite URL.

ORACLE WebLogic Server Administration Console 12c

Home Log Out Preferences Record Help

Welcome, weblogic Connected to: base_domain

Home > Summary of Servers > Suite8server > Summary of Asynchronous Tasks > Summary of Servers > Suite8server > Summary of Environment > Summary of Servers > Suite8server > Summary of Deployments

Change Center

View changes and restarts

Configuration editing is enabled. Future changes will automatically be activated as you modify, add or delete items in this domain.

Domain Structure

- base_domain
 - Environment
 - Servers
 - Clusters
 - Coherence Clusters
 - Machines
 - Virtual Hosts
 - Work Managers
 - Startup and Shutdown Classes
 - Deployments
 - Services
 - Security Realms
 - Interoperability
 - Diagnostics

How do I...

- Start and stop a deployed enterprise application
- Configure an enterprise application
- Create a deployment plan
- Target an enterprise application to a server
- Test the modules in an enterprise application

System Status

Health of Running Servers

Failed (0)
Critical (0)
Overloaded (0)
Warning (0)
OK (1)

Install Application Assistant

Back Next **Finish** Cancel

Optional Settings

You can modify these settings or accept the defaults

* Indicates required fields

General

What do you want to name this deployment? **Context name**

* Name: Suite8

Security

What security model do you want to use with this application?

- DD Only: Use only roles and policies that are defined in the deployment descriptors.**
- Custom Roles: Use roles that are defined in the Administration Console; use policies that are defined in the deployment descriptor.
- Custom Roles and Policies: Use only roles and policies that are defined in the Administration Console.
- Advanced: Use a custom model that you have configured on the realm's configuration page.

Source Accessibility

How should the source files be made accessible?

- Use the defaults defined by the deployment's targets
- Copy this application onto every target for me

Recommended selection.

During deployment, the files will be copied automatically to the Managed Servers to which the application is targeted.

I will make the deployment accessible from the following location

Location: D:\Oracle\Middleware\Oracle_Home\user_projects\domai

Provide the location from where all targets will access this application's files. This is often a shared directory. You must ensure the application files exist in this location and that each target can reach the location.

The Suite8 application appears in the **Deployments** area:

The screenshot shows the Oracle WebLogic Server Administration Console. The main content area is titled "Summary of Deployments" and includes a "Control" tab. Below the tab is a table of deployments. The table has columns for Name, State, Health, Type, Targets, and Deployment Order. One deployment is listed: Suite8, which is a Web Application targeted to Suite8server with a deployment order of 100. A red arrow points to the Suite8 entry in the table. The left sidebar shows the Domain Structure hierarchy, with "Deployments" selected. The top navigation bar includes "Home", "Log Out", "Preferences", "Record", and "Help".

Summary of Deployments

Control | Monitoring

This page displays a list of Java EE applications and stand-alone application modules that have been installed to this domain. Installed applications and modules can be started, stopped, updated (redeployed), or deleted from the domain by first selecting the application name and using the controls on this page.

To install a new application or module for deployment to targets in this domain, click the Install button.

Customize this table

Deployments

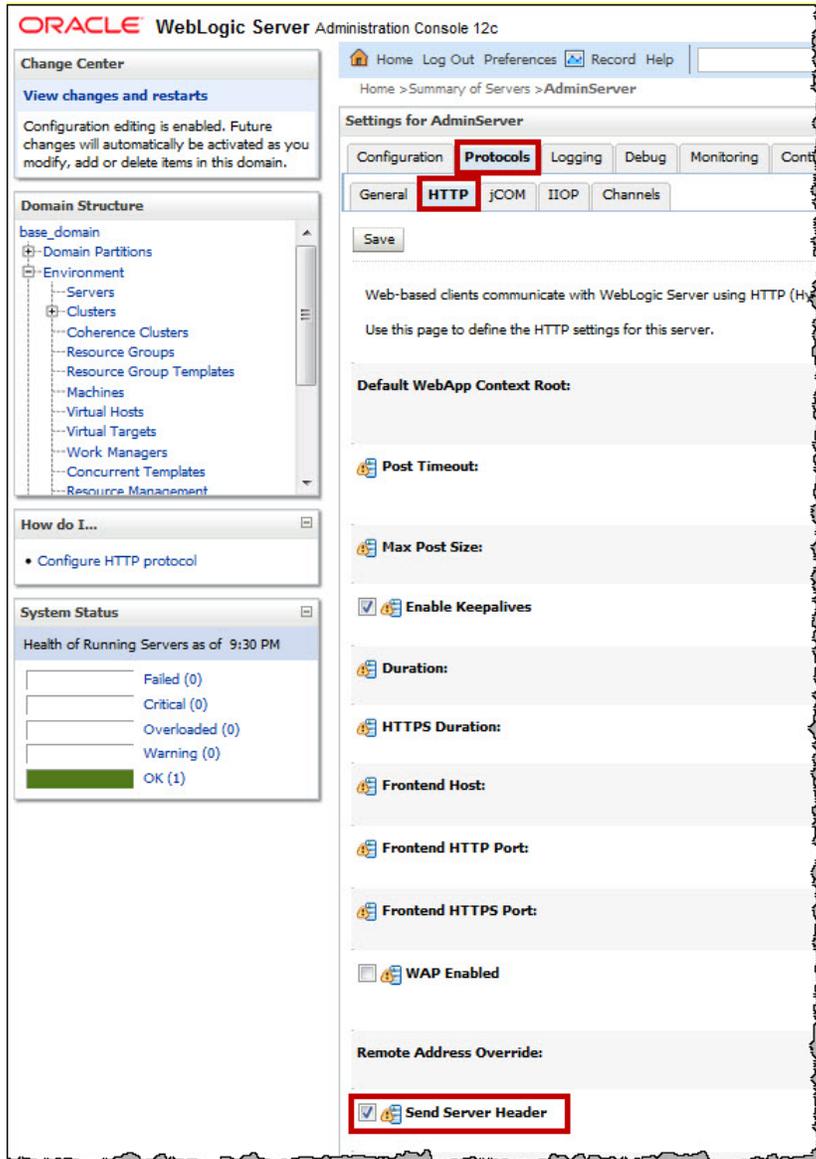
<input type="checkbox"/>	Name	State	Health	Type	Targets	Deployment Order
<input type="checkbox"/>	Suite8	New		Web Application	Suite8server	100

Showing 1 to 1 of 1 Previous | Next

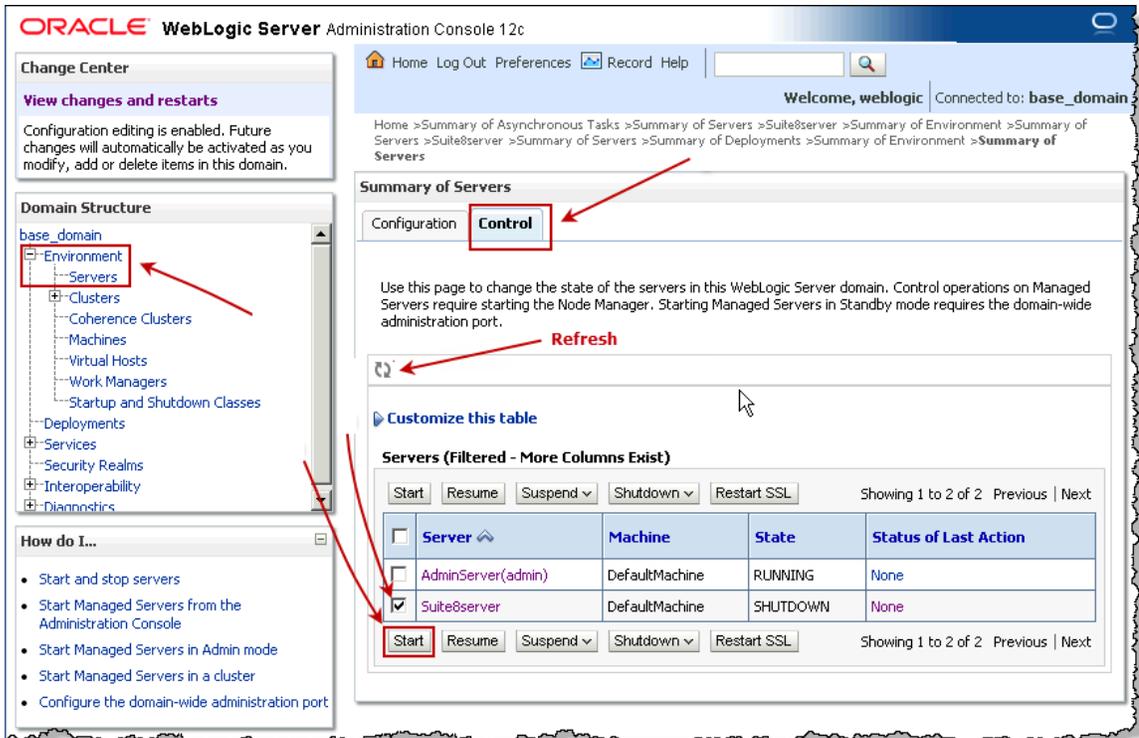
13. Expand the **Domain Structure** hierarchy to **Environment > Servers**.

14. Click **Lock & Edit**.

15. If you are using iNet Clear Reports, click the server link. On the **Protocols** tab, click the **HTTP** tab on the secondary row of tabs and select *Send Server Header*. If suite has been deployed in a cluster, repeat this step in all the managed servers contained in the cluster.



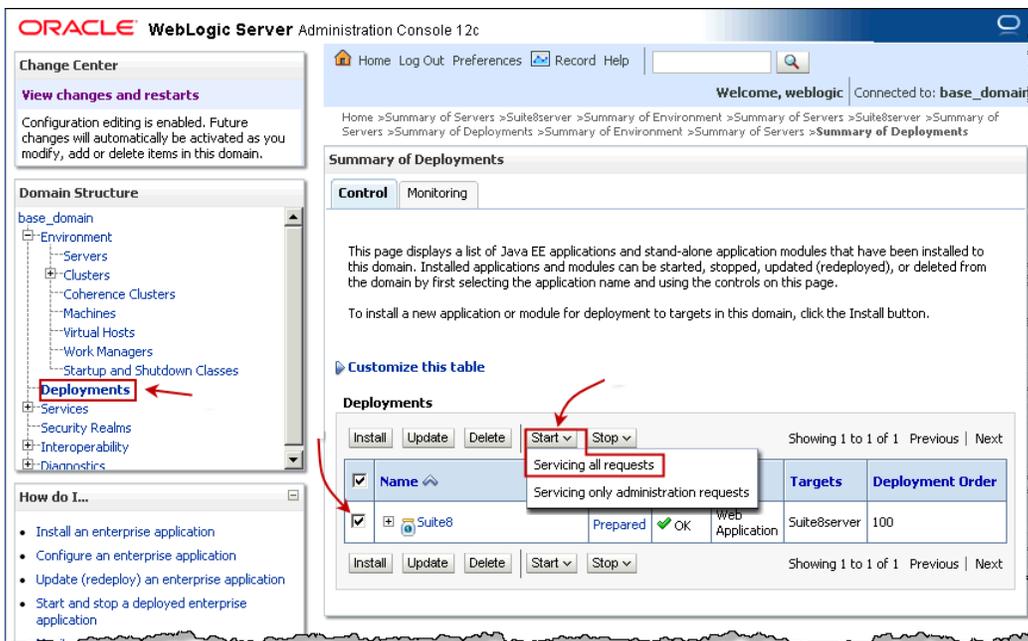
16. Click **Activate Changes**.
17. In the **Domain Structure** hierarchy, click **Servers**.
18. Select the **Control** tab. Select the check box next to the managed server (or all the servers involved in the clustered environment in step 11 on page 28), then click **Start**.



After a delay, typically less than a minute, the server state changes to RUNNING and the Status of Last Action column contains TASK COMPLETED.

You may have to click the refresh icon shown above.

- Expand the **Domain Structure** hierarchy to **Deployments**. Select the check box next to Suite8, then click **Start > Servicing all requests**.



The State changes to Active and the Health column contains OK.

You can confirm functionality by using a web browser to go to <http://localhost:<port>/suite8> (where <port> is the port number used). You should see the Applications page of Suite.

You are now ready to configure Suite. Go to page 41 for more information.

Configuring XML Parsers

To enhance the performance of the XML parsers when deployed on Oracle WebLogic, Mitrtech recommends the configuration steps below.

To Configure XML Parsers:

1. Open the `darwinmaster.properties` file (located at `<Install>\<Context>\web-inf\classes\com\bsi\attributes`, where `<Install>` is the installation directory for Suite on the Web server and `<Context>` is the name of the `.war` or `.ear` file).
2. Find the following properties and copy the lines:

```
#javax.xml.transform.TransformerFactory=net.sf.saxon.TransformerFactoryImpl
```
3. Paste the lines in the `darwin.properties` file (located in the same directory).
4. Remove the “#” characters from the property to activate the property.
5. Save the file.
6. Restart the WebLogic server.

Configuring UTF-8 Support

In order to support international characters in advanced search, the Java application server must be configured to support single byte UTF-8 (8-bit UCS/Unicode Transformation Format). In addition, the database also must support UTF-8 and must be converted if needed.

IBM WebSphere Application Server

Before You Begin

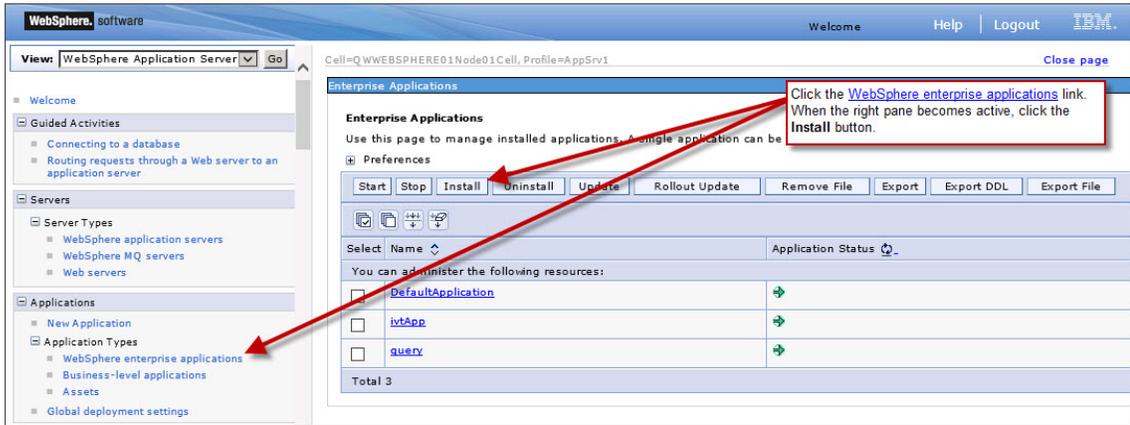
This document assumes that the IBM WebSphere Application Server is installed in the default directory (`C:\Program Files (x86)\IBM\WebSphere` for Microsoft Windows). If a different directory was used, adjust the path accordingly.

-  Reboot the computer at the end of the installation process, before launching Suite.

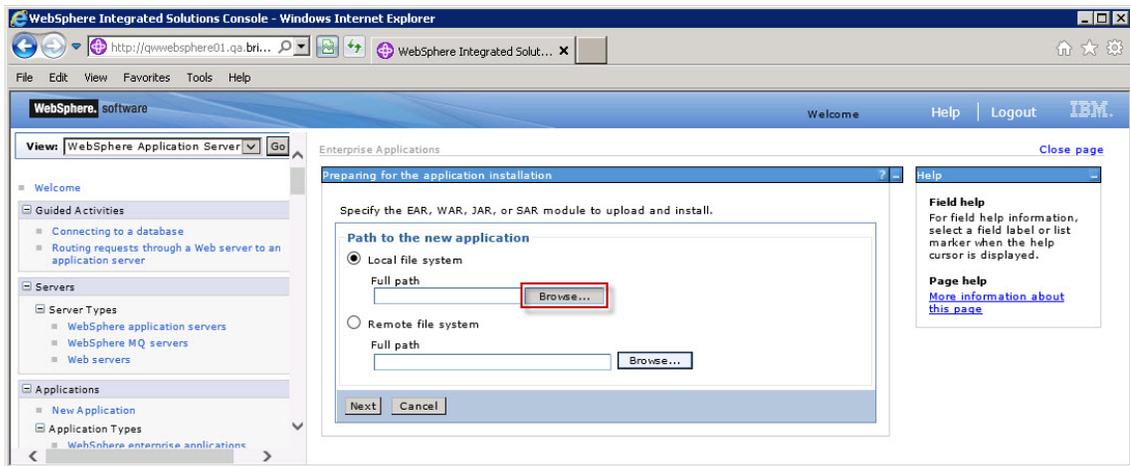
Deploying the .ear File

To Deploy the .ear File:

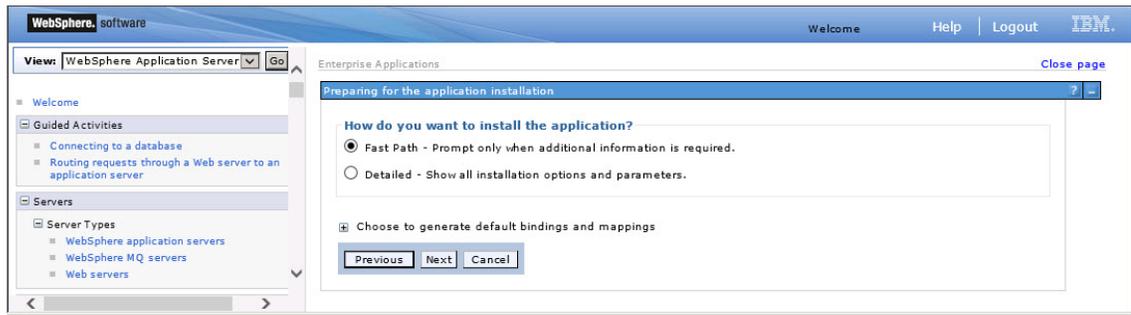
1. Launch the WebSphere Administrative Console. In the *Applications* node on the left pane of the Administrative console, click the [WebSphere Enterprise Applications](#) link. When the **Enterprise Applications** screen opens, click **Install**.



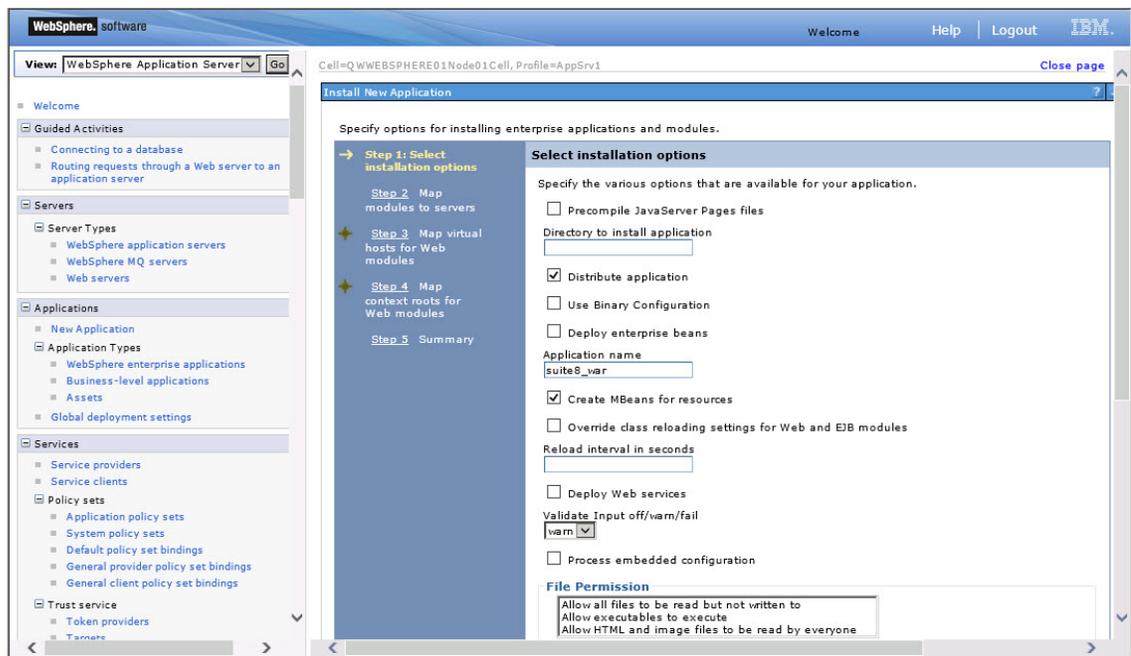
2. Click the **Browse** button and navigate to the appropriate folder under **WebSphere** on the Suite installation media. Select the **.ear** file, and click the **Next** button.



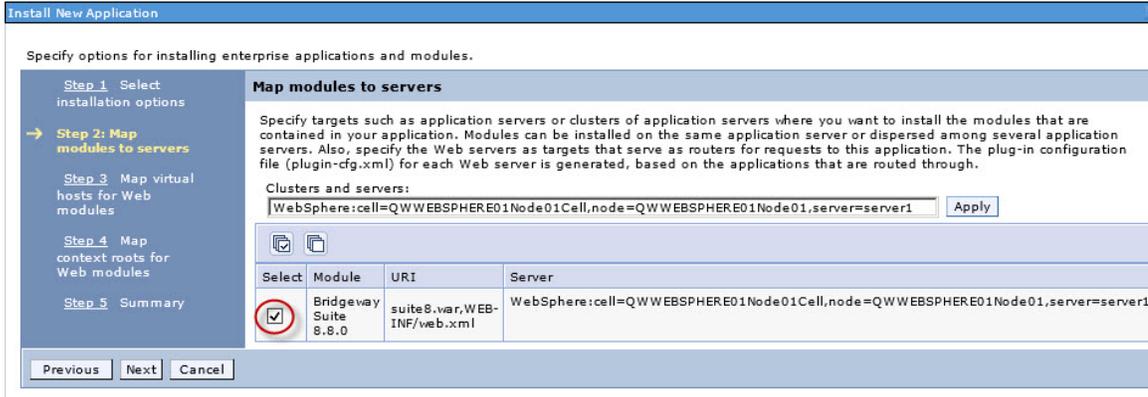
3. Accept the default *Fast Path* option, and click the **Next** button.



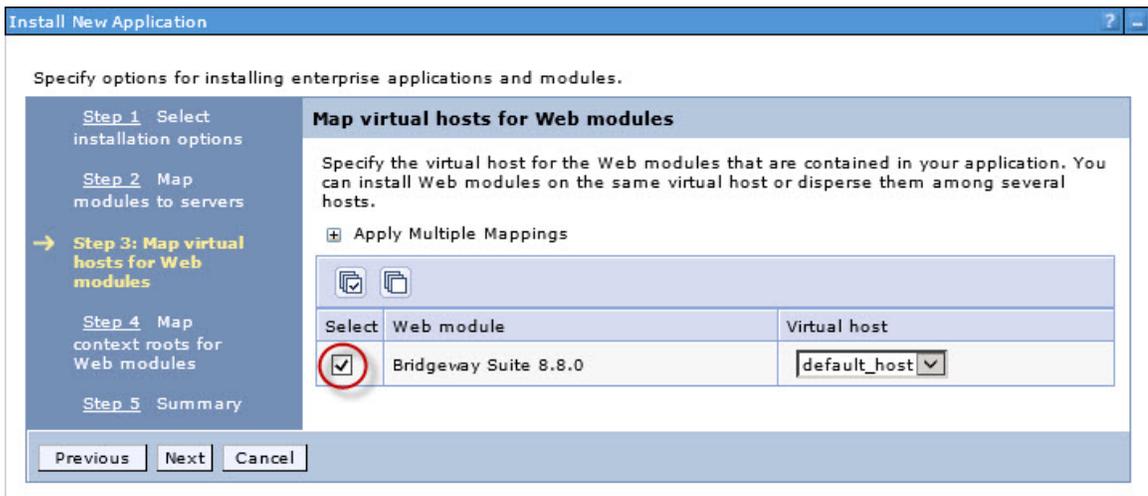
4. On the **Installation New Applications** screen, click **Next** at the bottom of the screen to accept the default settings.



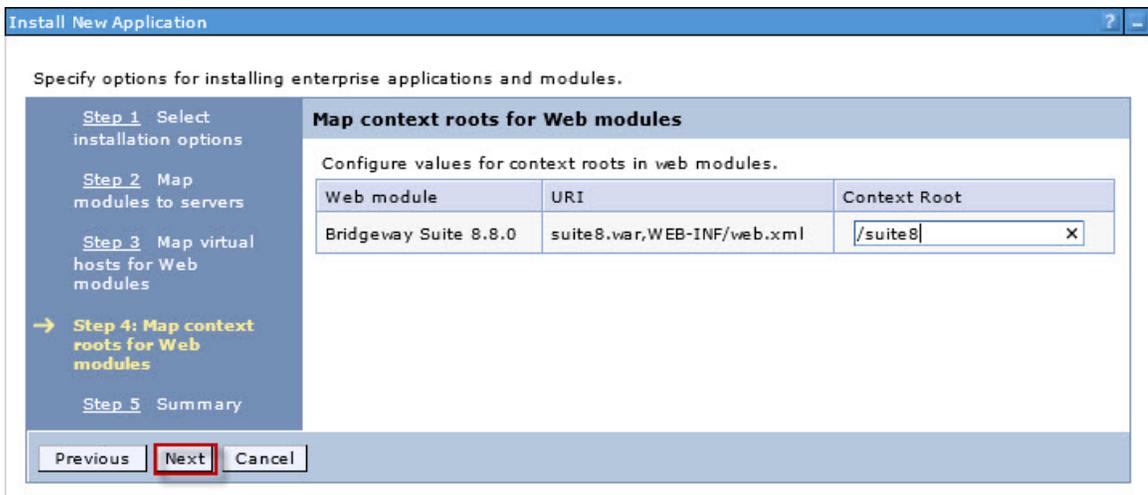
- Click the checkbox for the application, and click **Next**.



- Click the checkbox for the application, and click **Next**.



- Type the context root name, and click **Next**.



- Click the **Finish** button at the bottom of the page.

Install New Application

Specify options for installing enterprise applications and modules.

[Step 1](#) Select installation options

[Step 2](#) Map modules to servers

[Step 3](#) Map virtual hosts for Web modules

[Step 4](#) Map context roots for Web modules

→ **Step 5: Summary**

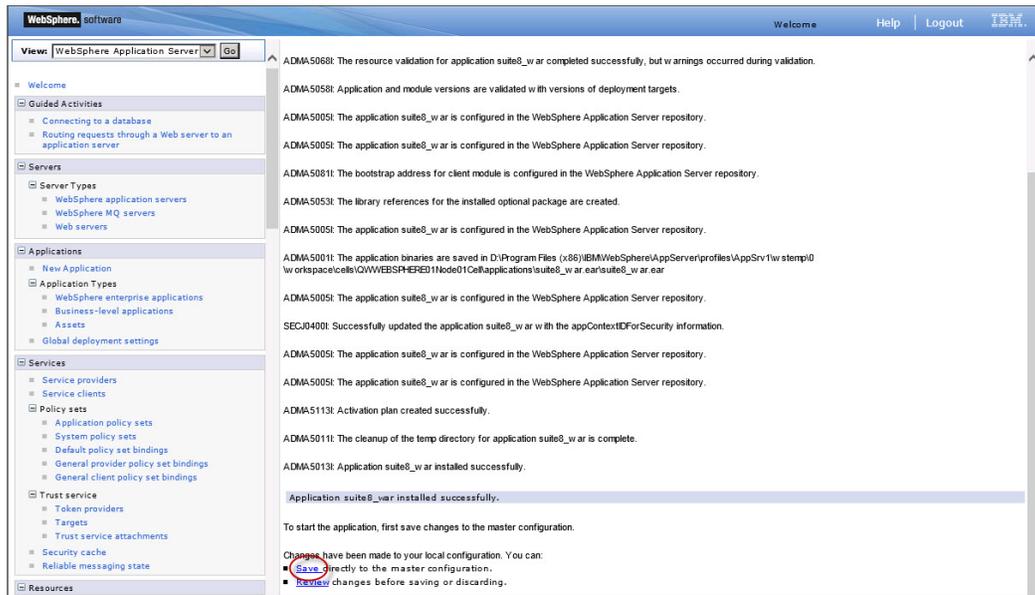
Summary

Summary of installation options

Options	Values
Precompile JavaServer Pages files	No
Directory to install application	
Distribute application	Yes
Use Binary Configuration	No
Deploy enterprise beans	No
Application name	suite8
Create MBeans for resources	Yes
Override class reloading settings for Web and EJB modules	No
Reload interval in seconds	
Deploy Web services	No
Validate Input off/warn/fail	warn
Process embedded configuration	No
File Permission	.*\,dll=755#.*\,so=755#.*\,a=755#.*\,sl=755
Application Build ID	Unknown
Allow dispatching includes to remote resources	No
Allow servicing includes from remote resources	No
Business level application name	
Asynchronous Request Dispatch Type	Disabled
Allow EJB reference targets to resolve automatically	No
Deploy client modules	No
Client deployment mode	Isolated
Validate schema	No
Cell/Node/Server	Click here

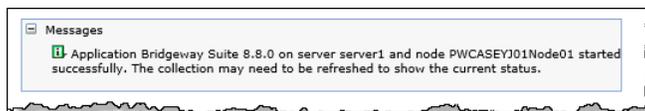
Previous **Finish** Cancel

- After the new application has been installed, click the [Save](#) link to save your changes to the master configuration.



- On the **Enterprise Applications** screen on the WebSphere Administrative Console, select the newly installed application and click the **Start** button.

A message appears indicating that the application started. The Application Status icon changes from  to . You may have to click refresh  to see the change.



If you accepted all the defaults, Suite should be accessible at <http://localhost:9080/suite880/>.

Configuring csrfguard.properties

In order for WebSphere to support the proper JCE, a value needs to be changed in the csrfguard property file.

To configure csrfguard.properties:

- Open the **Owasp.CsrfGuard.properties** file (located at `<Install>\<Context>\web-inf\classes`, where `<Install>` is the installation directory for Suite on the Web server and `<Context>` is the name of the `.war` or `.ear` file).
- Set the `org.owasp.csrfguard.PRNG` property equal to `IBMSecureRandom`:

```
org.owasp.csrfguard.PRNG=IBMSecureRandom
```
- Set the `org.owasp.csrfguard.PRNG.Provider` property equal to `IBMJCE`:

```
org.owasp.csrfguard.PRNG.Provider=IBMJCE
```
- Save the file.
- Restart the WebSphere server.

Configuring XML Parsers

To enhance the performance of the XML parsers when deployed on IBM WebSphere, Mitratech recommends the configuration steps below.

To Configure XML Parsers:

1. Open the `darwinmaster.properties` file, which is located in the following directory:

```
C:\Program Files (x86)\IBM\WebSphere\AppServer\profiles\AppSrv01\
installedApps\<hostname>Node01Cell\Bridgeway Suite X.xx ear\ suite
X.xx.war\WEB-INF\classes\com\bsi\attributes
```

where `<hostname>` is the host name that is part of the node name, seen in the **Map modules to servers** screen (see Step 5 on page 36).

Adjust the directories for any changes that you made to the WebSphere installation directory or the name of the `.ear` file).

2. Find and copy the following lines:

```
#XML/XSLT plugins for Websphere
#javax.xml.transform.TransformerFactory=com.icl.saxon.TransformerFactoryImpl
#javax.xml.parsers.SAXParserFactory=org.apache.xerces.jaxp.SAXParserFactoryImpl
#javax.xml.parsers.DocumentBuilderFactory=
    org.apache.xerces.jaxp.DocumentBuilderFactoryImpl
```

3. Paste the lines into the `darwin.properties` file (located in the same directory).
4. Remove the initial comment symbol “#” from each line except the first to activate the property.
5. Save the file.

Configuring UTF-8 Support

In order to support international characters in advanced search, the Java application server must be configured to support single-byte UTF-8 (8-bit UCS/Unicode Transformation Format). In addition, the database also must support UTF-8 and must be converted if needed.

Configuring IIS for WebSphere

To configure WebSphere with IIS, see the tech note “Configuring WebSphere and IIS.”

Configuring Suite

Adding and Configuring Database Access

The instructions below contain the steps to set up database access. To configure database access using a JNDI setup, see “Creating a JNDI Database Connection” on page 45.

Creating a Database Connection

To Configure Database Access:

1. Open a browser window and navigate to the **Database Properties Administrator** page using the following URL form:

<http://<ServerName>/<Context>>

where <ServerName> is the name of the server and <Context> is the context name for Suite (for example, <http://server/suite8>).

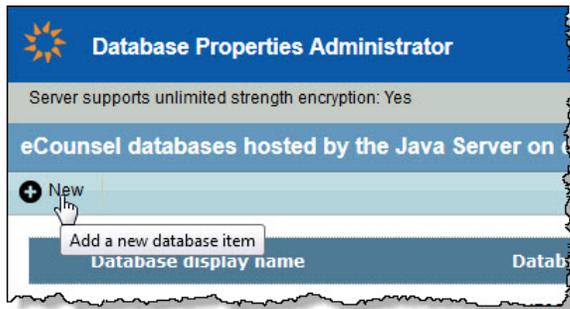
Click on the [\(with options\)](#) link next to a product name.



SuperViewer can be configured to open directly to the home page or to require users to enter a login ID first. The steps to setting up database access are the same; the method in which you access the properties file differs according to the type of user access:

Login ID required <http://<ServerName>/suite8/svloginoptions.htm>
No login ID required <http://<ServerName>/suite8/svopenoptions.htm>

- The first time you access the Suite application, you will be prompted to enter a license key for each product you will be using, then click **Save**. Licensing is done at the application context level and applies to all databases added to the context. License keys are stored in the **db.s.enc** file (an encoded file that cannot be read).
- Click the **New** button on the **Database Properties Administrator** page to add a new database specification.



- Type the appropriate information in the Database Display Name and Unique Database ID text boxes. The Unique Database ID should not include any spaces.
- Select the *Is default Database* checkbox. While more than one database configuration can be accommodated, most companies will only use one. If multiple databases are used, select only one to designate as the default.
- Make the appropriate selection from the Database Type dropdown list.
- Modify the Database URL field to include the IP address of the database server and the name of the database.
 - i** The “1433” port on this line is the standard port for Microsoft SQL Server. Adjust this text accordingly. If you are using an instance of Microsoft SQL Server, open the SQL Server Configuration Manager application to determine the TCP/IP port number under the SQL Server Network Configuration node.
- Type the appropriate information in the Database User Name and Database Password text boxes.
- Type the name of the table qualifier in the Table Qualifier text box. Mitrtech recommends using “dbo” for Microsoft SQL Server databases and the name of the Oracle schema that owns the Suite database tables, views, etc., for Oracle databases.
- Type the system password in the System Password text box.
 - i** You will always be prompted for the system user password when editing an existing database properties record.
- In the *Scheduler Service Settings* area, by default the *Automatically Start* checkbox is checked so that the scheduler starts when the Java application server is started. If you are creating a database connection for a development or test deployment, uncheck this checkbox so the scheduler does not interfere with any production systems (for example, if Smart Invoice is configured, the test and the production deployment may both be processing invoices if the Smart Invoice tasks are executed from both deployments). For clustered deployments, only check this checkbox for *one* instance of the Suite server so that multiple instances are not running the scheduler.
- If the deployment of Suite has multiple instances, click the *Clustered* checkbox so that any time a scheduled task is executed on one instance, the scheduler on any other instances will not attempt to execute the scheduled task at the same time or after it has already run.

13. Type the URL you want to appear on the login page in the Login Content URL text box. The URL used if blank is <http://version8.bridge-way.com>.
14. An area at the bottom of the screen gives you the option of creating an HTML template that will be used as the entry point for users. The information entered on this screen is stored in the `db.s.enc` file on the server. The `db.s.enc` file is an encoded file and cannot be read.

! You may want to rename the `client.htm` file if you are using more than one Suite application. For example, rename this file to `ec.htm` and/or `secre.htm`. Do not name the file `ecounsel.htm` or `secretariat.htm` as these names are used by the applications.

Example of Oracle (Thin Driver) Configuration (Tomcat Web server)

Add/Edit Database Item:

Save Close

Database Identification:

Database Display Name:

Unique Database Id:

Select a unique identifier to identify this database. This unique identifier must consist of alpha-numeric characters only.

Database Connection Information:

Is JNDI Data Source:

Is default Database:

Database Type:

Database Driver:

Database Url:

Valid Urls are of the form:

- Oracle (Thin): "jdbc:oracle:thin:@database-server-ip-address:1521:database-name"
- SQL Server 2012/2014: "jdbc:bridgeway.sql:database-server-ip-address:1433?database=database-name&encrypt=true"

Authentication Information

Database User Name:

Database Password:

Table Qualifier:

System Password:

Scheduler Service Settings:

Automatically Start:

Clustered:

Other Settings:

Login Content URL: Use about page

Create html template for this database item:

Html file name:

Example of SQL Server Configuration (Tomcat Web server)

Add/Edit Database Item:

Save Close

Database Identification:
Database Display Name:
Unique Database Id:
Select a unique identifier to identify this database. This unique identifier must consist of alpha-numeric characters only.

Database Connection Information:
Is JNDI Data Source:
Is default Database:
Database Type:
Database Driver:
Database Url:
Valid Urls are of the form:

- Oracle (Thin): "jdbc:oracle:thin:@database-server-ip-address:1521:database-name"
- SQL Server 2012/2014: "jdbc:bridgeway.sql:database-server-ip-address:1433?database=database-name&encrypt=true"

Authentication Information
Database User Name:
Database Password:
Table Qualifier:
System Password:

Scheduler Service Settings:
Automatically Start:
Clustered:

Other Settings:
Login Content URL: [Use about page](#)
Create html template for this database item:
Html file name:

15. Click **Save** to return to the **Database Properties Administrator** page.

! Mitrtech strongly recommends restarting the Web service after configuring database access to refresh all settings and customizations. In addition, restarting the service causes all Web browser connections to renew. If you have selected to start the scheduler automatically, you *must* restart the Web service.

The *Action* dropdown menu contains various administrative options. For example, the Server Administrator could launch the application in debug mode. If you want to edit an existing record, you will be prompted to enter the system password.

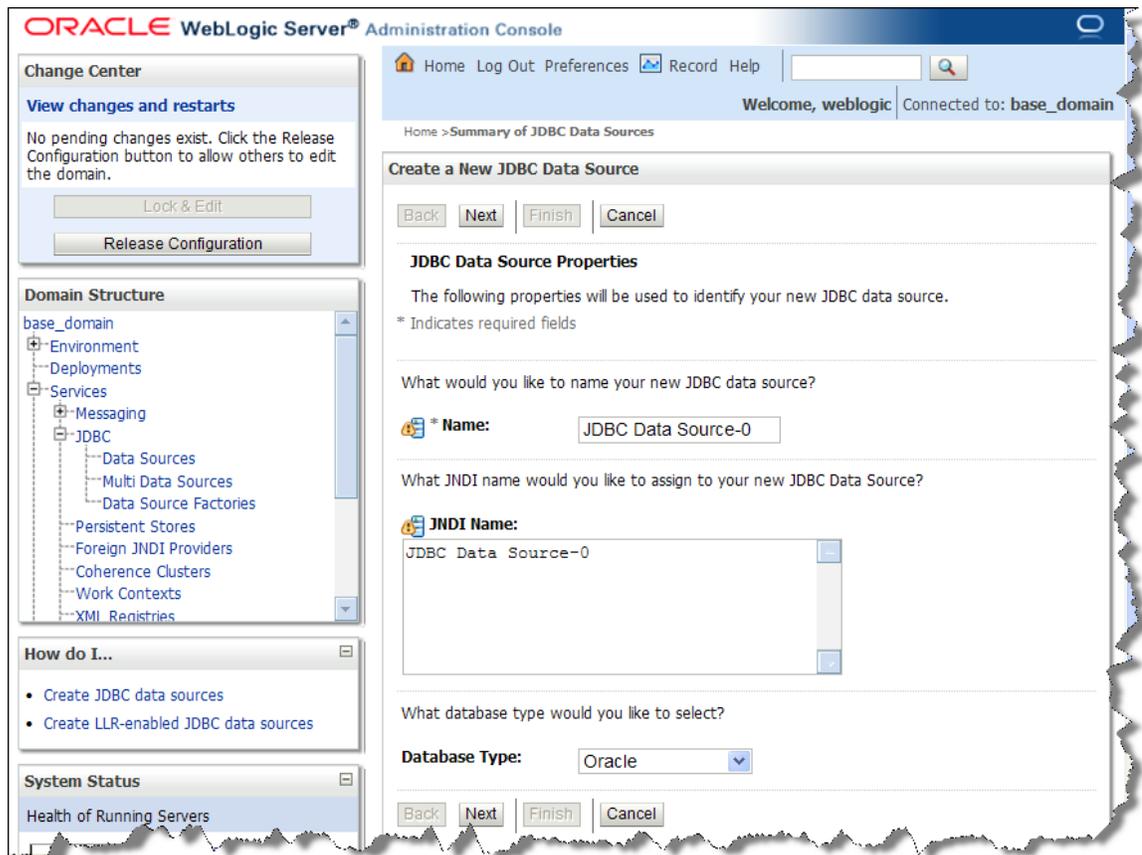
Creating a JNDI Database Connection

In order to best support a clustered environment, use the instructions below to configure a WebLogic application server and Suite to use the application server managed connection pool as a JNDI resource. This configuration gives you more control over the maximum connections each client can create, so that you can tailor the maximum connection count for each client depending on the number of users.

Currently Mitratech supports using JNDI data sources with the WebLogic application server using an Oracle database. Apache Tomcat and WebSphere application servers are *not* supported using JNDI data sources.

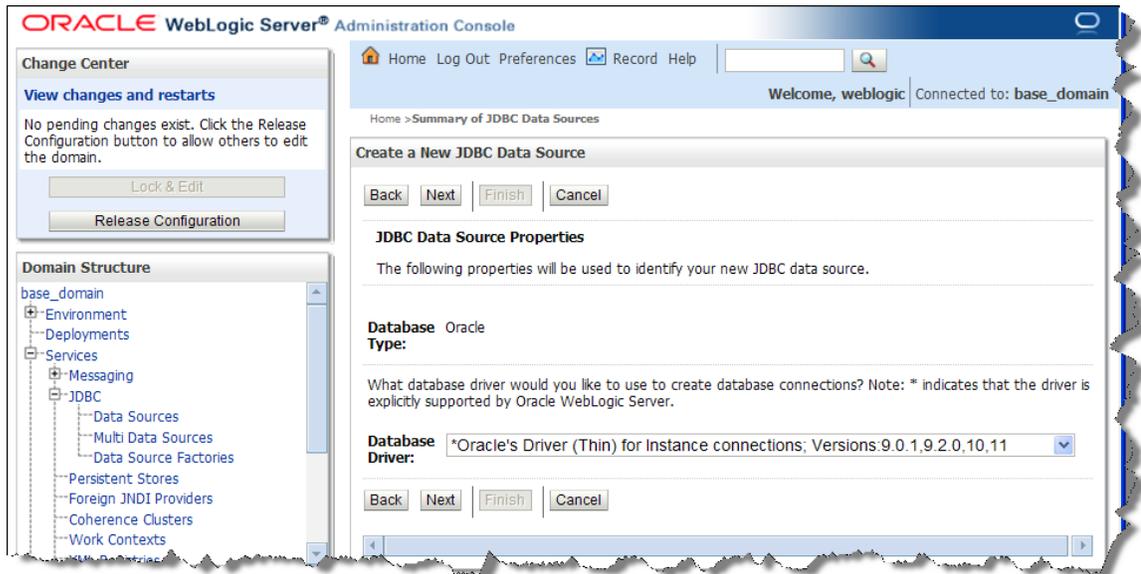
To Configure the JNDI Data Source on WebLogic 11g:

1. Login to the WebLogic admin console.
2. Navigate to the Services/JDBC/Data Sources node in the Domain Structure tree in the left pane.
3. Click the **Lock & Edit** button.
4. Click the **New** button to create a new JNDI data source.
5. Type in the name of the data source in the Name and JNDI Name text boxes.

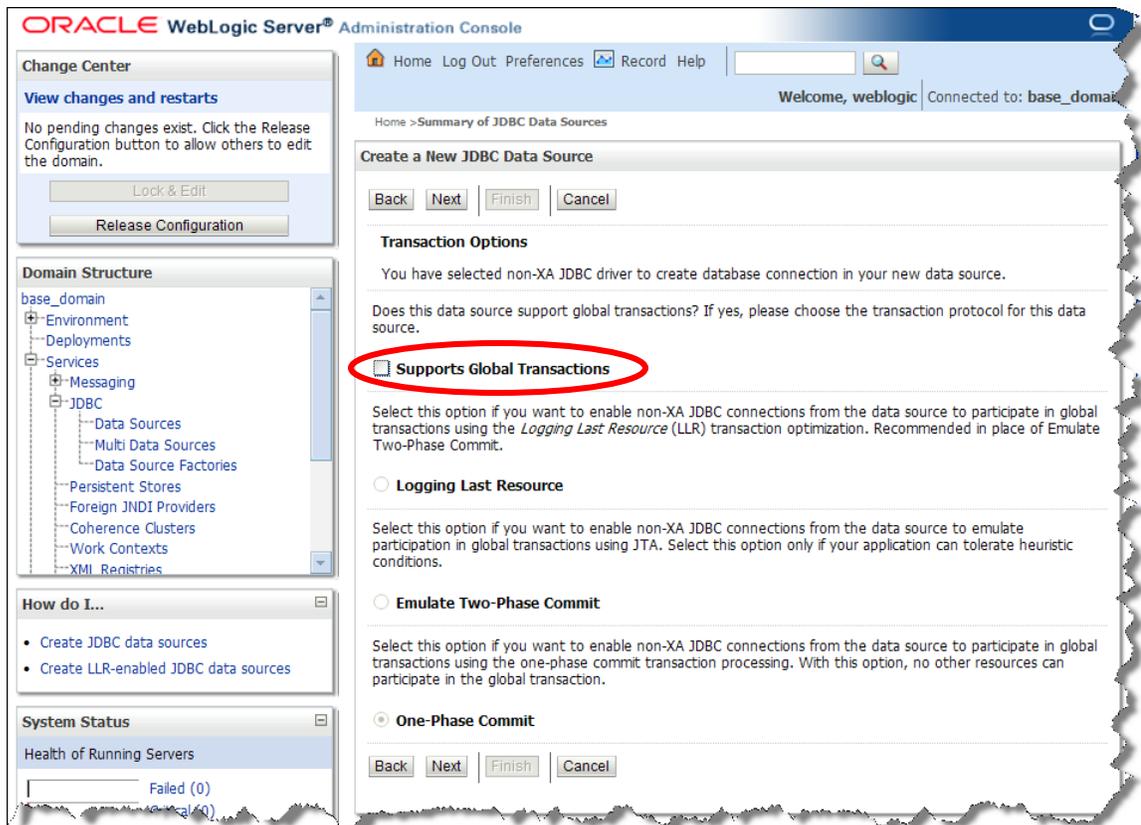


6. Select the *Oracle* database type.
7. Click the **Next** button.

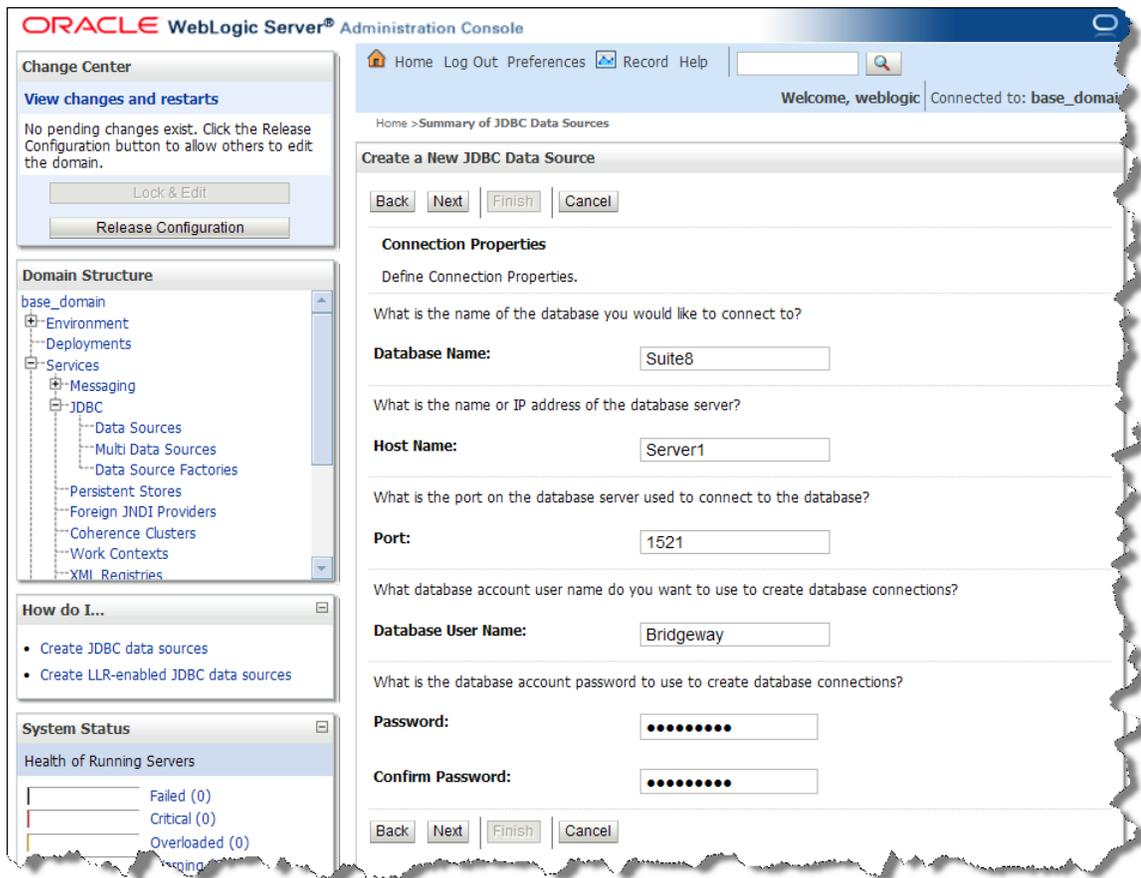
- For the Database Driver field, select *Oracle's Driver (Thin) for instance connections;* Versions:9.0.1,9.2.0,10,11.



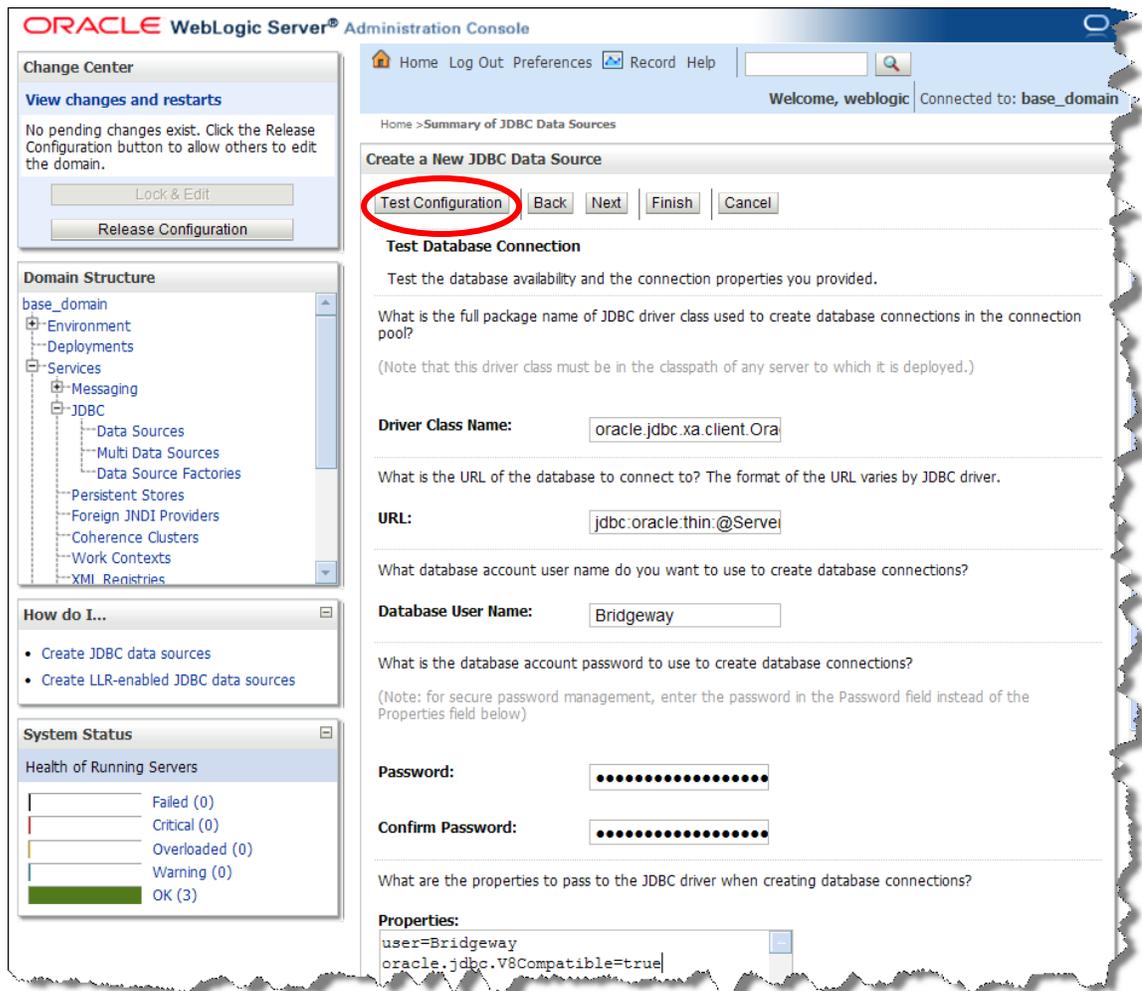
- Click the **Next** button.
- Click on the *Supports Global Transactions* checkbox to de-select the checkbox.



11. Click the **Next** button.
12. Enter the database information and click the **Next** button.



13. Add the text “oracle.jdbc.V8Compatible=true” to a new line of the Properties field (append the text to the list; do not remove existing lines of text).



14. Click the **Test Configuration** button to test the new JNDI data source.
15. Click the **Next** button.
16. Select the clusters and nodes to which to deploy the JNDI data source.
17. Click the **Finish** button.
18. Click the **Activate Changes** button to activate the data source.
19. In the Domain Structure tree, navigate to Services/JDBC/Data Sources and verify the newly created data source appears. You may need to restart the JVM to see the new JNDI data source.

To Create a JNDI Data Source Connection:

1. Follow Steps 1-4 in “Creating a Database Connection” on page 41.
2. Select the *Is JNDI Data Source* checkbox.

Add/Edit Database Item:

Save Close

Database Identification:

Database Display Name:

Unique Database Id:

Select a unique identifier to identify this database. This unique identifier must consist of alpha-numeric characters only.

Database Connection Information:

Is JNDI Data Source:

Is default Database:

Database Type:

JNDI Data Source Name:

3. Select the *Oracle (Thin Driver)* database type.
4. Type in the name of the JNDI data source on the WebLogic Java application server.
5. Type the name of the table qualifier in the Table Qualifier text box.
6. Type the system password in the System Password text box.
7. Click **Save** to return to the **Database Properties Administrator** page.

! Mitratech strongly recommends restarting the Web service after configuring database access to refresh all settings and customizations. In addition, restarting the service causes all Web browser connections to renew. If you have selected to start the scheduler automatically, you *must* restart the Web service.

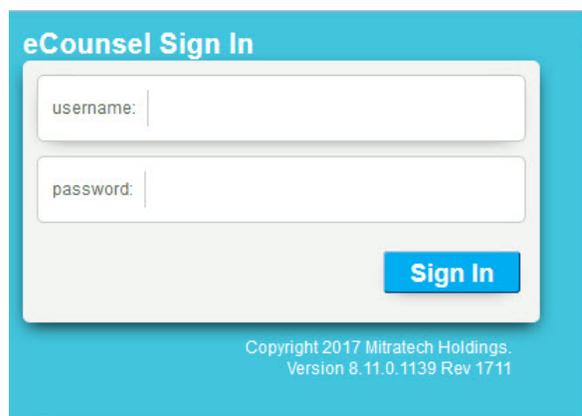
Launching the Suite Application

Enter the following URL in a browser window, substituting the appropriate alias (context) and program name:

<http://<ServerName>:<Port>/<Context>/<ProgramName>.htm>

where <ServerName> is the name of the server, <Port> is the port used for connection (omit the :<Port> if a redirector is being used), <Context> is the context name for Suite, and <ProgramName> is the name of the Suite application (for example, <http://server/suite8/ecounsel.htm>). You can only use the <ProgramName>.htm designation for the default database for eCounsel and Secretariat (not applicable for SuperViewer). You also can create a <ProgramName>client.htm file when creating the database connection. Be aware that if you accept the default HTML file name, it will overwrite any existing file, so it is recommended that you add the product name prefix to the client.htm supplied name.

The login page will display unless you are using the open options version of SuperViewer.



Accessing Online Help

The online help files are hosted by Mitratech. In order to access the files from within Suite Manager, eCounsel, Secretariat, or SuperViewer, you must have Internet connectivity and access to the site through any company-implemented firewalls. See “Appendix A: Setting Properties” on page 123 for information on pointing the application to help files at a different location.

Accessing the CorpCharts Stencil and Template

The stencil and template files for CorpCharts are hosted by Mitratech. In order to access the files from within Secretariat, you must have Internet connectivity and access to the site through any company-implemented firewalls. See “Appendix A: Setting Properties” on page 123 for information on pointing the application to the stencil and template files at a different location.

Accessing the Hosted Error Message Files

An error message file with user-friendly messages is hosted by Mitratech. In order to access the file from within eCounsel or Secretariat, you must have Internet connectivity and access to the site through any company-

implemented firewalls. See “Appendix A: Setting Properties” on page 123 for information on pointing the application to an error message file at a different location.

Administering SuperViewer Open Options

An additional security measure has been incorporated on the Administrator’s page in SuperViewer. This additional measure is only necessary if you are going to use the configuration where the users do not have to login and are using the following to access SuperViewer:

<http://<ServerName>:<Port>/<Context>/svopenoptions.htm>

where <ServerName> is the name of the application server, <Port> is the port used for connection (omit the :<Port> if a redirector is being used), and <Context> is the context name for Suite (for example, <http://server1:8080/suite8/svopenoptions.htm>).

To Configure Suite Manager for SuperViewer:

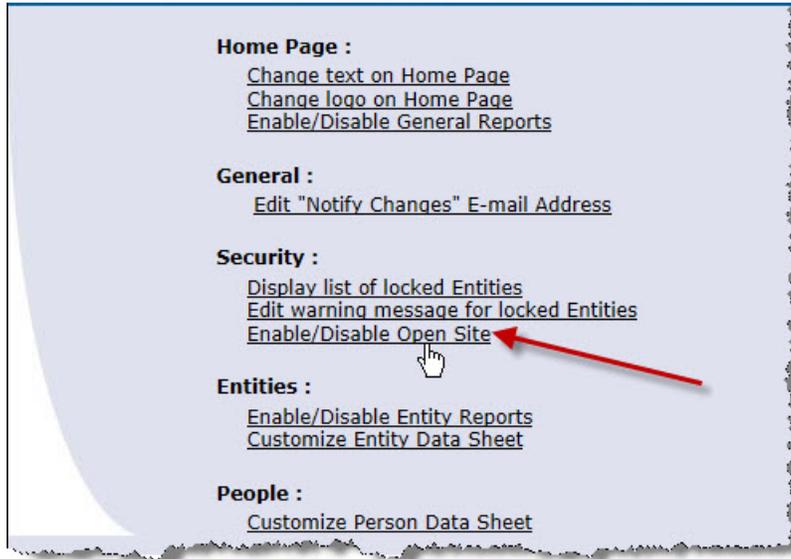
In Suite Manager, create a user with the following credentials and security access settings:

- Login Name: svguestuser
- Password: sv\$guestuser#10
- Access to SuperViewer: Allow
- Access to Secretariat: Deny
- Access to eCounsel: Deny

For more information on using Suite Manager to configure Suite, click  in the upper-right corner of the Suite Manager control panel or see the *Suite Manager Administrator Guide*.

To Enable the Open Site:

1. Log into SuperViewer with administrator credentials.
2. Click on the [Admin](#) link.
3. In the *Security* area, click on [Enable/Disable Open Site](#).



4. Select the *Enable Open Site* checkbox, and click **Submit**.

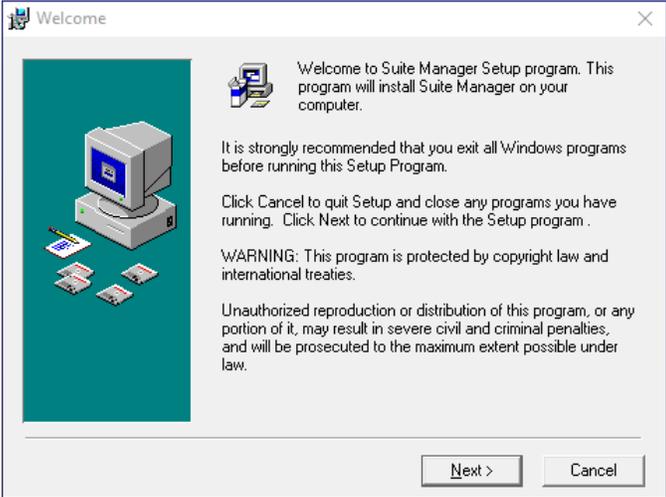
The above steps must be done before anyone can access SuperViewer without a login prompt.

Installing Suite Manager

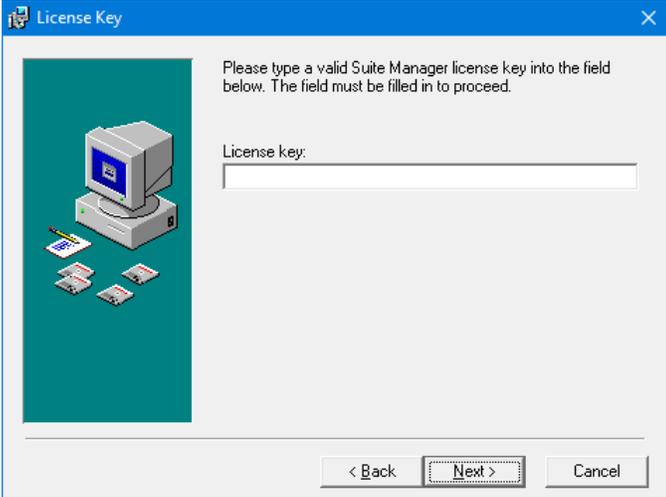
Install Suite Manager on the system administrator workstation first, then, install the client program on user's computers as needed. You must install Suite Manager from a local Administrative account.

To Install Suite Manager:

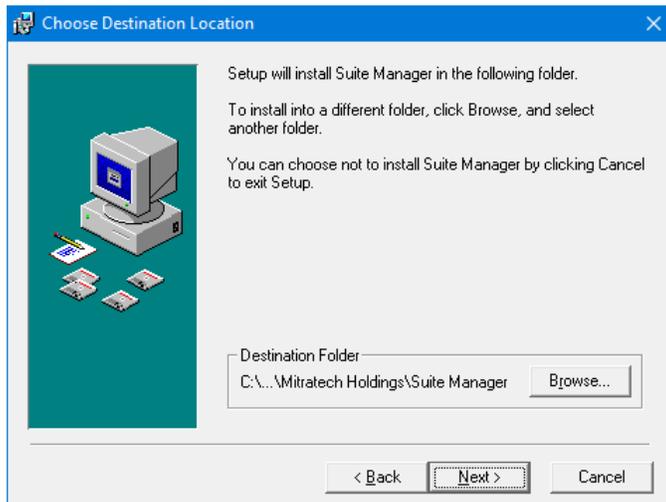
1. Start the installation program for Suite Manager located under the **Suite Manager** directory on the Suite installation media.
2. Click **Next** on the **Welcome** screen.



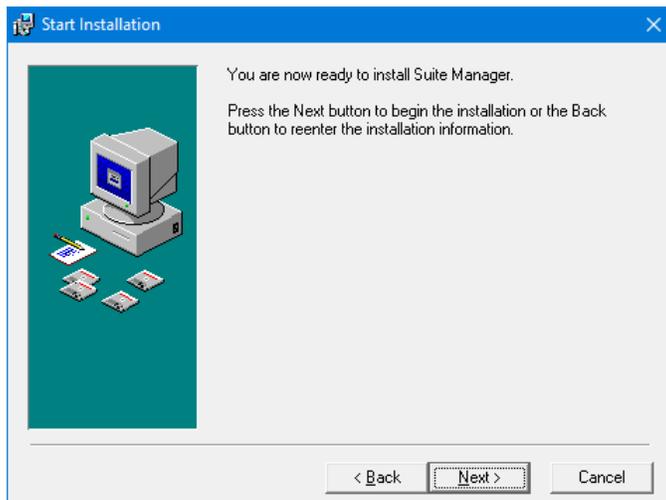
3. On the **License Key** screen, type the license key in the text box and click **Next**.



4. On the **Choose Destination Location** screen, confirm that the Destination Folder is the desired directory location for the program files.

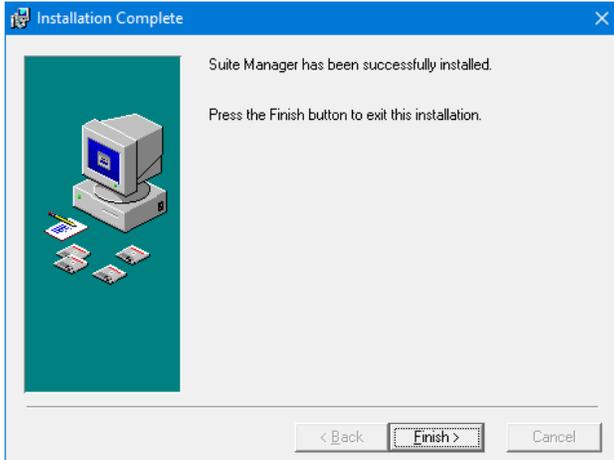


5. On the **Start Installation** screen, click **Next** to begin the installation process.



6. A progress screen will display. You can abort the installation at any time by clicking **Cancel**.

7. On the **Installation Complete** screen, click **Finish**.



Starting Suite Manager

To Start Suite Manager:

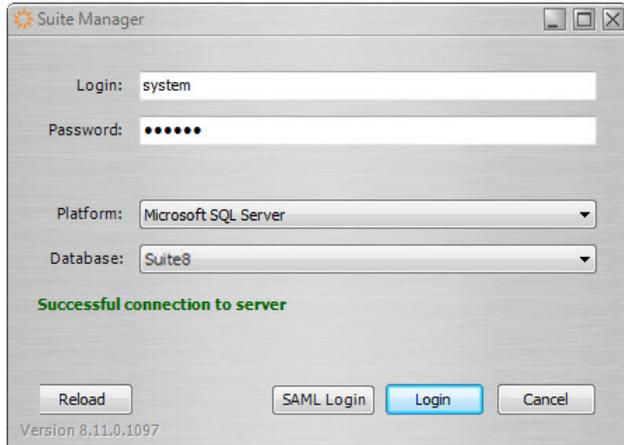
1. Click the **Start** menu, select *Programs*, select *Mitratech Holdings Application Suite*, then select the *Suite Manager* menu command.

2. The first time you access Suite Manager, you must enter the server URL and application context and the proxy server name and port (if required) on the **HTTP Connection Settings** dialog box. Optional proxy server authentication can be performed by configuring the type, user name, password, and domain information if required. Click **OK**.

The screenshot shows the 'HTTP Connection Settings' dialog box. At the top, the title bar includes a question mark icon and standard window controls (minimize, maximize, close). The main content area is organized into several sections. The first section is 'Server URL', featuring a text input field with the value 'http://server:8080/suite8' and a 'Verify' button. To the right of this section are 'OK' and 'Cancel' buttons. Below this is the 'Server Requires Authentication' section, which is checked. It contains a 'Type' dropdown menu set to 'Form', a 'User Name' text box with 'user', a 'Password' text box with asterisks, a 'Domain' text box, and a 'Save' dropdown menu set to 'Don't Save Credentials'. To the right of this section are 'Load from XML' and 'Save to XML' buttons. The next section is 'Use Proxy Server', which is unchecked. It includes 'Proxy Server' and 'Port' text boxes. Below that is the 'Proxy Server Requires Authentication' section, also unchecked, with 'Type', 'User Name', 'Password', and 'Domain' text boxes.

3. On the **Suite Manager** login dialog box, enter the system user ID. Contact Mitrtech Customer Support if you are not aware of these credentials. The System user ID is required:
 - the first time Suite Manager is opened in order to create new IDs,
 - to modify security attributes for the Suite Manager program, and
 - to change the system password.

4. Click **Login**.



Configuring the Data Root

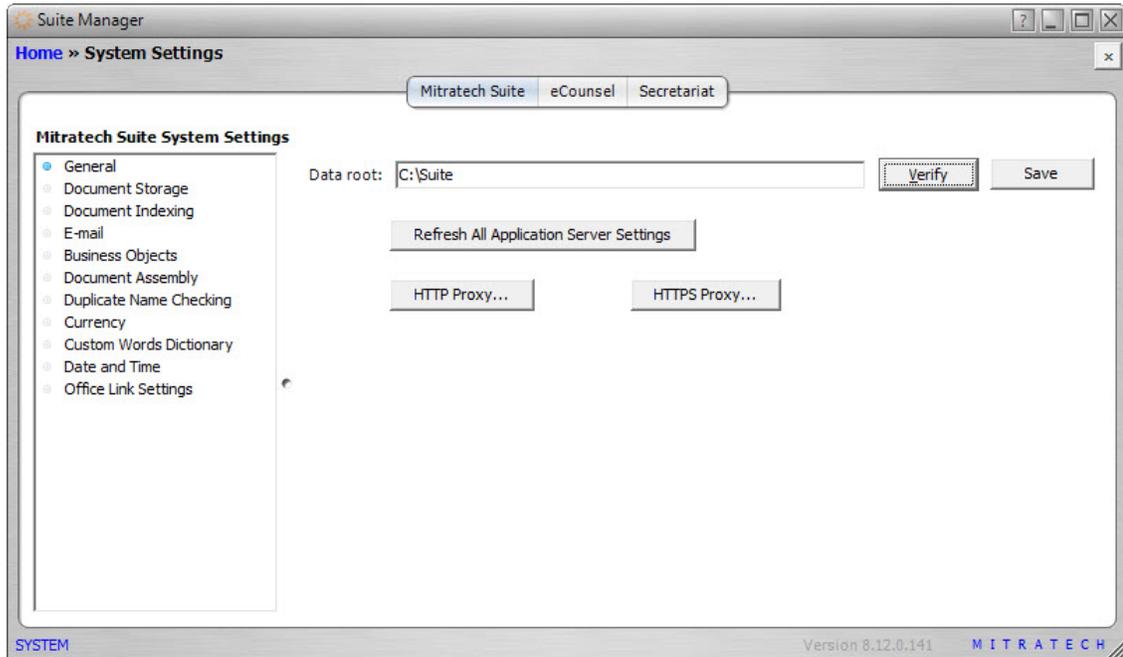
The Data Root is a folder structure that allows for separation of data/log files from the application hierarchy in order to make upgrades simpler. The Data Root is a path designated by the System Administrator where the data/log files will be stored. It can be a folder on any server as long as the Java server has read/write access to it. The Data Root must be a UNC path if the folder structure is on a different server. If the Data Root is located on the Java server, a local path can be designated. An example Data Root folder path is `c:\suite8` for Microsoft Windows and `/opt/suite8` for UNIX.

- i** In order to set the Data Root path in Suite Manager, you must have the Verify Data Root Folder security attribute assigned to your user ID.

To Set the Data Root in Suite Manager:

- !** In order to configure the Data Root, Suite must be fully configured and operational.
 1. Open Suite Manager.
 2. On the **Suite Manager** control panel, click on the  **System Settings** component in the **System Configuration** area.

3. On the **General** settings area of the **Suite** tab, type the path to the directory where the data/log files will be stored.



4. Click the **Verify** button next to the Data root text box. The Java server will verify the designated folder exists and is read/write accessible by the Java server and a folder structure will automatically be created under the designated Data root path.
5. Click **Save**.
6. Click **Refresh All Application Server Settings**.

Installing Mitratech Office Link

The Mitratech Office Link installation must be completed on each user's computer. Administrators can either install the add-in on each user's machine or configure the system to allow users to download and install the add-in. In order for the user to download the application, the administrator must grant the user permission to download the application.

If you were using Bridgeway E-mail Link or Bridgeway Calendar Link, disable these features in Suite Manager before upgrading. If you do not disable them before upgrading, you will need to create and run a database script to disable these integrations prior to setting up Mitratech Office Link

If you were previously using Bridgeway E-mail Link, complete the following before upgrading:

- Disable Bridgeway E-mail Link in Suite Manager. On the **Mitratech Suite** tab in the **System Settings** component, click **Bridgeway E-mail Link** and clear the *Enable Bridgeway Link* checkbox.
- Remove the corresponding Microsoft Outlook IMAP accounts on user's machines. (In Microsoft Outlook, click **File** and click **Account Settings** on the **Info** page. In the **Account Settings Dialog** box, select the account and click the **Remove** button.)
- If you were previously using Bridgeway Calendar Link, disable Bridgeway Calendar Link in Suite Manager prior to upgrading Suite. On the **Mitratech Suite** tab in the **System Settings** component, click **Calendar Integration** and select *None* from the **Calendar integration type** dropdown menu.
- If you were previously using Bridgeway Link, disable or uninstall the add-in from Microsoft Outlook.

For more information on using Mitratech Office Link, see the [Mitratech Office Link User's Guide](#). For more information on Administrative applications, see the [Mitratech Office Link Administrator's Guide](#). For information on using Suite Manager, see the [Suite Manager Administrator Guide](#).

Enabling Users to Install the Add-ins

Administrators can grant users permissions to download and install the add-ins directly from eCounsel or Secretariat. Before these users can download the installers, the installers and documentation must be placed in a location accessible to the users. If you do not want to enable this access, proceed to the section "Configuring Suite Manager" on page 61.

Making the Installers Accessible

If users are allowed to install the add-ins from the **Tools | Preferences** page in eCounsel or Secretariat, the installers and documentation must be placed in a location that the users can access. The installers and documentation are available from the **DVD** folder in the installation media.

Note: The instructions for making the installer available to users are for on-premise installations only. If you have an installation of Suite that is hosted by Mitratech, contact Mitratech support.

To make the installers accessible to users:

1. Upload the following items to a location that can be accessed by the user's machine through Suite:
 - The installers – users will access the installers from the appropriate link on the eCounsel or Secretariat **Tools | Preferences** page.
 - Mitratech Office Link Release Notes – users will access this document from the **ReadMe** link on the eCounsel or Secretariat **Tools | Preferences** page.

2. With a text editor, create a metadata xml file to map the location of the installers and the Release Notes. As a template, you can use the ExampleMetadata.xml file found in the **DVD/Documentation/Mitratech Office Link** directory of the installation media, or the xml found in “Appendix D: Example Metadata Template for Mitratech Office Link Installers” on page 133. When using this template, replace the information in parentheses between the xml tags with your specific information.
3. Save the metadata file with an **.xml** extension. You can create your own name for this file, but it must have the **.xml** extension.
4. Upload the **.xml** file to a location that can be accessed by the user’s machine through Suite.
5. With a text editor, open the darwin.properties file and configure the InstallersURL property to point the URL of the .xml file created in the previous step. For more information on setting properties, see “Appendix A: Setting Properties” on page 123.
6. Save the file and restart Web services.

Granting Users Permission to Install

Before a user can download and install the add-ins through eCounsel or Secretariat, the administrator must grant the user permission in Suite Manager. Otherwise, a system administrator needs to retrieve the installers from the installation media and distribute or install on individual client machines.

To grant permissions to a user:

1. Open Suite Manager.
2. On the **Suite Manager** control panel, click **the Users/Groups** component in the Security area.
3. On the **Users** tab of the **Users/Groups** window, select the user and click **Edit**.
4. On the **Security Attributes** tab, select the component of Suite (eCounsel or Secretariat).
5. Click the **Office Link Office Add-in Download** or **Office Link Outlook Add-in Download**.
6. Set the **Override Access** to **Allow**.
7. Click **Save**. The user can now download the add-in.

To grant permissions to a group:

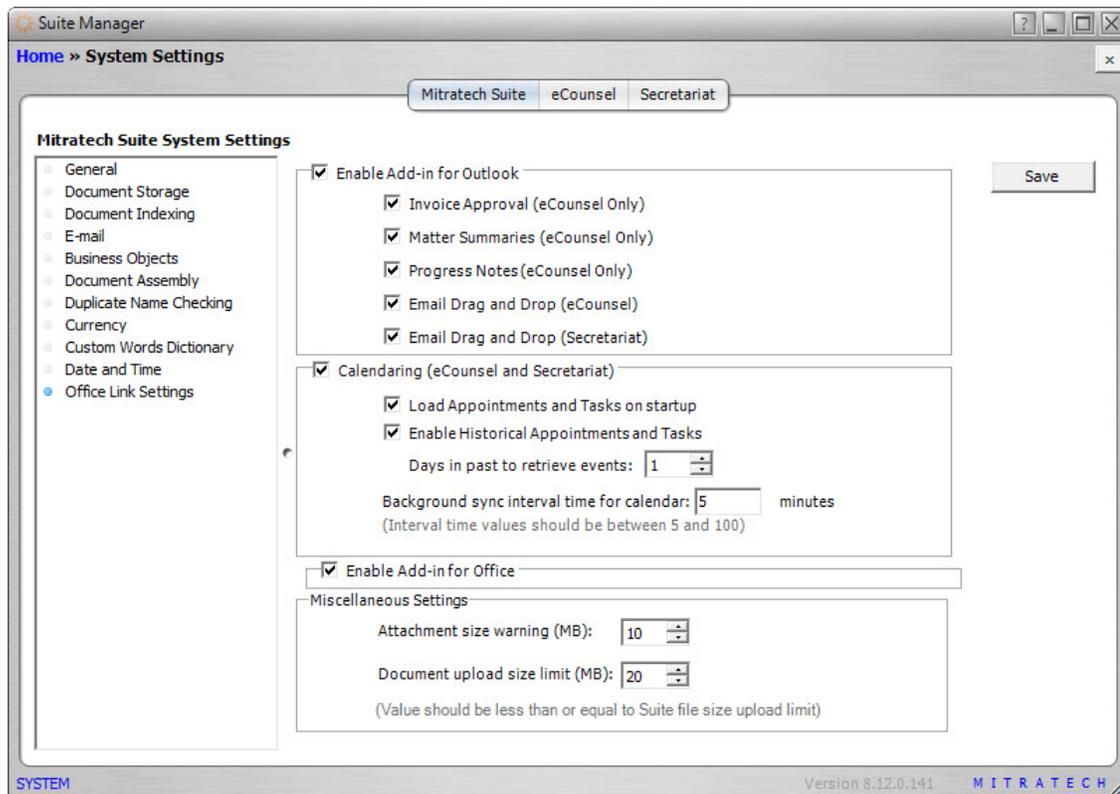
1. Open Suite Manager.
2. On the **Suite Manager** control panel, click the **Users/Groups** component in the Security area.
3. On the **Users** tab of the **Users/Groups** window, select the group and click **Edit**.
4. On the **Security Attributes** tab, select the component of Suite (eCounsel or Secretariat).
5. Click the **Office Link Office Add-in Download** or **Office Link Outlook Add-in Download**.
6. Set the **Override Access** to **Allow**.
7. Click **Save**. The group can now download the add-in.

Configuring Suite Manager

Before users can use Mitrtech Office Link, the administrator must enable the add-ins in Suite Manager.

To enable Mitrtech Office Link:

1. Open Suite Manager.
2. On the **Suite Manager** control panel, click the  **System Settings** component in the System Configuration area.
3. On the **Mitrtech Suite** tab of the **System Settings** window, click the **Office Link** settings.



4. Select *Enable Add-in* for Outlook. This option is required for any Mitrtech Office Link functionality.
5. Select the options that you want to enable:
 - **Invoice Approval (eCounsel Only)** – the ability to view and approve invoices in the eCounsel *Invoices Awaiting My Approval* filter using the Mitrtech Office Link pane.
 - **Matter Summaries (eCounsel Only)** – the ability to search, view, and email matter summaries using the Mitrtech Office Link pane.
 - **Progress Notes (eCounsel Only)** – the ability to add and view progress notes associated with a matter.
 - **Email Drag and Drop (eCounsel)** – the ability to attach emails and documents to matters by dragging them to the appropriate folder in the Mitrtech Office Link pane.

- **Email Drag and Drop (Secretariat)** – the ability to attach emails and attachments to entities by dragging them to the appropriate folder in the Mitrtech Office Link pane.
 - **Calendaring (eCounsel and Secretariat)** – the ability to synchronize appointments and tasks between Microsoft Outlook and Suite.
 - **Load Appointments and Tasks on Startup** – allows Outlook to load Appointments and Tasks when Outlook is opened.
 - **Enable Historical Appointments and Tasks** – allows recent past appointments and tasks to be loaded into Outlook. The number of historical calendar events that are loaded into can range from 0 to 10 days.
 - **Background sync interval time for calendar** – designates the time interval for synchronizing tasks and appointments in Suite and Microsoft Outlook.
6. In the **Document upload size limit** field, define the size threshold for documents that are uploaded to eCounsel and Secretariat.
 7. In the Attachment size warning field, designate a file size at which users receive a warning in the Microsoft Outlook add-in. This warning appears when the user selects attachments from the Mitrtech Office Link pane that exceed this limit.
 8. Click Save.

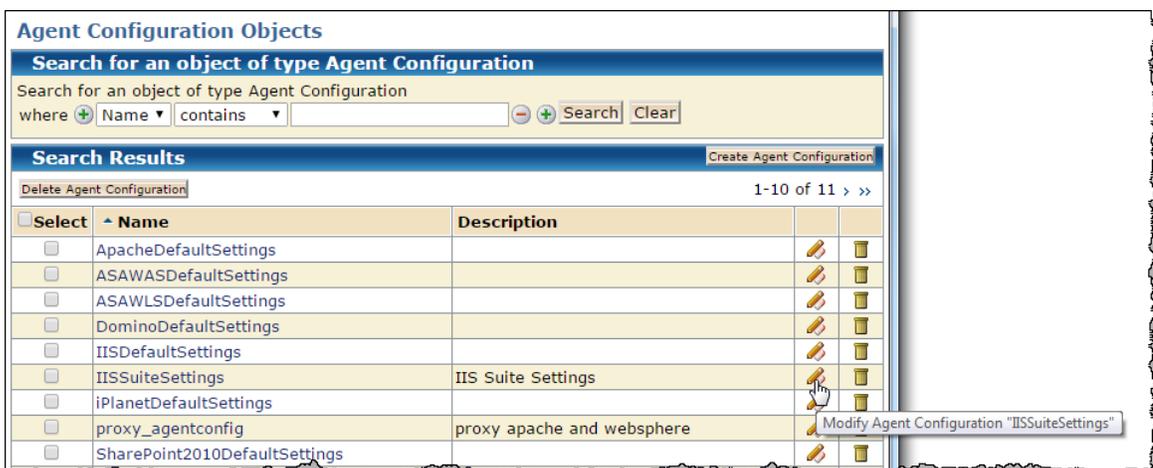
Configuring the SiteMinder Web Agent

If you are using SiteMinder, you need to make the following configuration changes to the Web agent.

1. Login to the SiteMinder Administrative UI.
2. Click the **Infrastructure** tab, and click the **Agent Configuration Objects** link.



3. Click the Modify Agent Configuration icon for IISuiteSettings.



4. Modify the following parameters. To modify a parameter, click through the pages to find the parameter, click the **Edit** icon for the parameter, make the change, then click **OK**.

- **BadUriChars** – In the Value field, remove tilde (~) from the list of values.

Modify Agent Configuration: IISSuiteSettings
Agent Configuration Objects > Modify Agent Configuration: IISSuiteSettings

Edit Parameter

• = Required

• Name: BadUriChars

Encrypted

Plain
 Multi-value

Value: ///././././.*.*.*.*.*%00-%1f

- **IgnoreURL** – In the Value field, add the Mitrtech Office Link API (/suite8/outlook-office/v1

Modify Agent Configuration: IISSuiteSettings
Agent Configuration Objects > Modify Agent Configuration: IISSuiteSettings

Edit Parameter

• = Required

• Name: IgnoreUrl

Encrypted

Plain
 Multi-value

Value: /suite8/outlook-office/v1

Installing the Add-ins

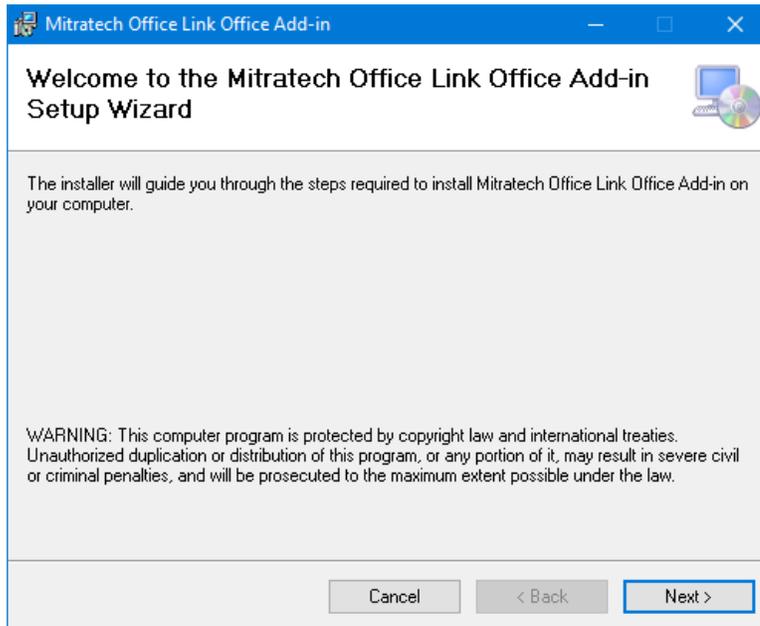
Users with the appropriate permissions can download the add-ins directly from eCounsel or Secretariat. The installers are also available in the installation media in the DVD/Office Link directory.

To download the add-in from Suite:

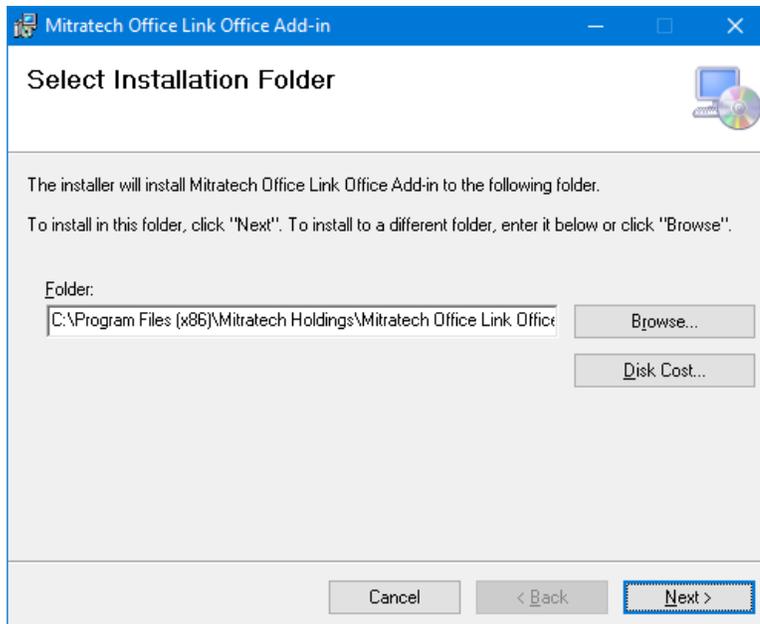
1. In eCounsel or Secretariat, click the **Tools** link.
2. On the **Preferences** tab, click the **Office Link** tab.
3. Click the download link for the appropriate add-in(s).

To install the add-in:

1. Run the setup.exe installer and click **Next** on the **Welcome** screen.



2. If you want to change the folder where the installer installs the add-in, click **Browse**. To use the default folder, click **Next**.



3. On the **Mitratech Office Link Add-in** screen, enter the appropriate information:
 - In the Login URL field, type the login URL in the following format:
<https://<ServerName>:<Port>/<Context>/outlook-office/v1/~<DatabaseName>/>

where:

- *<ServerName>* is the name of the application server
- *<Port>* is the port used for connection
- *<Context>* is the context name for Suite
- *<DatabaseName>* is the database display name of the database being accessed (found on the **Database Properties Administrator** page).

For example: <https://companydomain.com:8443/suite8/outlook-office/v1/~database4/>

Include **http://** at the beginning of the URL and a trailing slash (/) at the end of the URL.

If left empty, the Login URL field will be populated from the default information in OfficeSetting.ini when the add-in is installed. The user will be prompted for the correct URL when Microsoft Outlook or Office application is opened.

For situations in which eCounsel and Secretariat are installed but the user only has access to Secretariat and **not** to eCounsel, the URL must include **-2** at the end of the URL before the trailing slash (/). For example:

<https://companydomain.com:8443/suite8/outlook-office/v1/~database4-2/>

- In the Login URL Editable field, type **TRUE** or **FALSE**:
 - **TRUE** enables the user to change the login URL after the add-in is installed.
 - **FALSE** ensures that the user cannot edit the login URL and is only applicable if a login URL is designated.

If left empty, this field defaults to TRUE.

- The **Browser Enabled** field is not used by Suite. Leave this field empty.

Mitratech Office Link Office Add-in

Mitratech Office Link Office Add-in

Login URL:
https://companydomain.com:8443/suite8/outlook-office/v1/~database4

Login URL Editable:
TRUE

Cancel < Back Next >

4. Click **Next**.

5. Click **Next** to confirm and start the installation.
6. If installing the add-in for Microsoft Office, open an Office application such as Microsoft Word, PowerPoint, or Excel and verify that the *Mitrtech Office Link* pane displays. If not, click the **Suite** tab in the ribbon, click **Settings**, and enter the user name and password on the **Credentials** tab.

When the add-ins are installed in a machine, the add-ins are available only for the user who installed them because the OfficeSettings.ini is created with the login URL information only for that user.

In order to make an add-in available for other accounts on the same machine, run the installer for each user account and select the **Repair** option. The Repair installation must be run for each add-in. If the OfficeSettings.ini from the default directory path contains a valid login URL, the add-ins will be available without any error. If it does not have the login URL information, ignore the exceptions until the system requests the credentials and saves the valid login URL in OfficeSettings.ini from User directory path.

In some cases when the login URL is not working or is invalid, Mitrtech Office Link will return an error message stating the resource is not found.

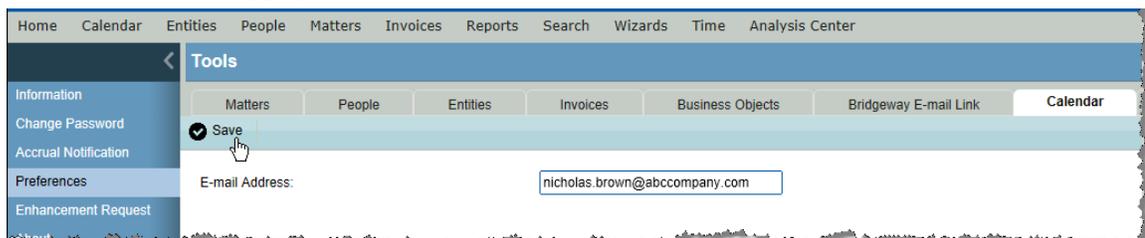
- In the Mitrtech Office Link Settings, change the login URL to a valid URL before closing Microsoft Outlook or Microsoft Office. Otherwise, the incorrect login URL will be saved in OfficeSettings.ini for that user directory and the add-in will be disabled for that user. To re-enable the add-in, delete the OfficeSettings.ini in the user directory and the system will then take the default login information from C:\Users\Default\AppData\Roaming\
- If changing the login URL in the settings does not work, ignore the exception error until the system request the credentials and then save the valid login URL information in OfficeSettings.ini from the User directory.

Configuring the Calendar Options

In order to use the Calendar options, each Mitrtech Office Link user must configure eCounsel or Secretariat with an email address. If you are using both eCounsel and Secretariat, you only need to enter your email address in one of the applications. Your email address will be propagated to the other Suite application.

To Configure an E-mail Address:

1. Open eCounsel or Secretariat.
2. Click **Tools** on the menu bar.
3. On the **Tools** page, click the **Preferences** tab.
4. On the **Preferences** tab, click the **Calendar** settings.
5. On the **Calendar** tab, type your e-mail address.



6. Click **Save**.

Upgrading and Reinstalling Add-ins

When reinstalling an add-in or upgrading to a newer version of an add-in, uninstall the add-in before reinstalling the new version. To uninstall the add-in, you can use either the “Add and Remove” feature in the Microsoft Windows Control Panel, or you can double-click the original installation files and select the *Remove Mitrtech Office Link Add-in* option.

Installing Update Manager

Update Manager is a Web application offered by Mitratesh that makes installing update releases of Suite easy! The tool manages all update releases that are installed in your implementation of Suite, allowing you to install updates directly from the Internet, then uninstall if needed.

To install Update Manager, deploy the **.war/.ear** file on the Update Manager or Suite installation media using the same instructions as below:

Apache Tomcat – Deploying the .war File” on page 12

- Oracle WebLogic – “Deploying the .war File” on page 25
- IBM WebSphere – “Deploying the .ear File” on page 34

For more information, see the *Update Manager Installation Guide*.

Configuring Third-Party Applications

Configuring i-net Clear Reports

Suite Version 8.11 and higher uses i-net Clear Reports (formerly i-net Crystal-Clear) 16 for running reports. No separate installation is required; however, a license must be acquired from Mitratesch. Contact the Customer Support department to register. You will need to provide the operating system and IP address of the Web server where Suite is installed and the number of processors.

! **Notice to Crystal Reports 9 Users:** Templates created in Crystal Report 9 or later must be converted before they can be used in any of the Suite applications. This conversion is done using the ReportReader tool included in the `templates\i-net Crystal Clear Reports\Report Reader Tool` directory on the Suite installation media. For more information, see the section “Upgrading Custom i-net Clear Reports Templates” on page 99.

Configuring the i-net Clear Reports Server

To Configure the i-net Clear Reports Server:

1. Copy the **InetConfigurationManager** folder from the **DVD** folder in the installation media and paste it in a convenient location on the machine with the i-net Clear Reports server.
2. If using a Microsoft Windows server, log in as the user that will be running the JVM and open a command prompt as an administrator. If using a Linux server, open the terminal and log in as the user that will be running the JVM.
3. Use a `cd` command to switch to the **InetConfigurationManager** directory. For example, in Microsoft Windows:

```
cd <Directory>\InetConfigurationManager
```

where *<Directory>* is the name of the path of the directory in which **InetConfigurationManager** folder was pasted. For example:

```
cd C:\InetConfigurationManager
```

For an example in Linux:

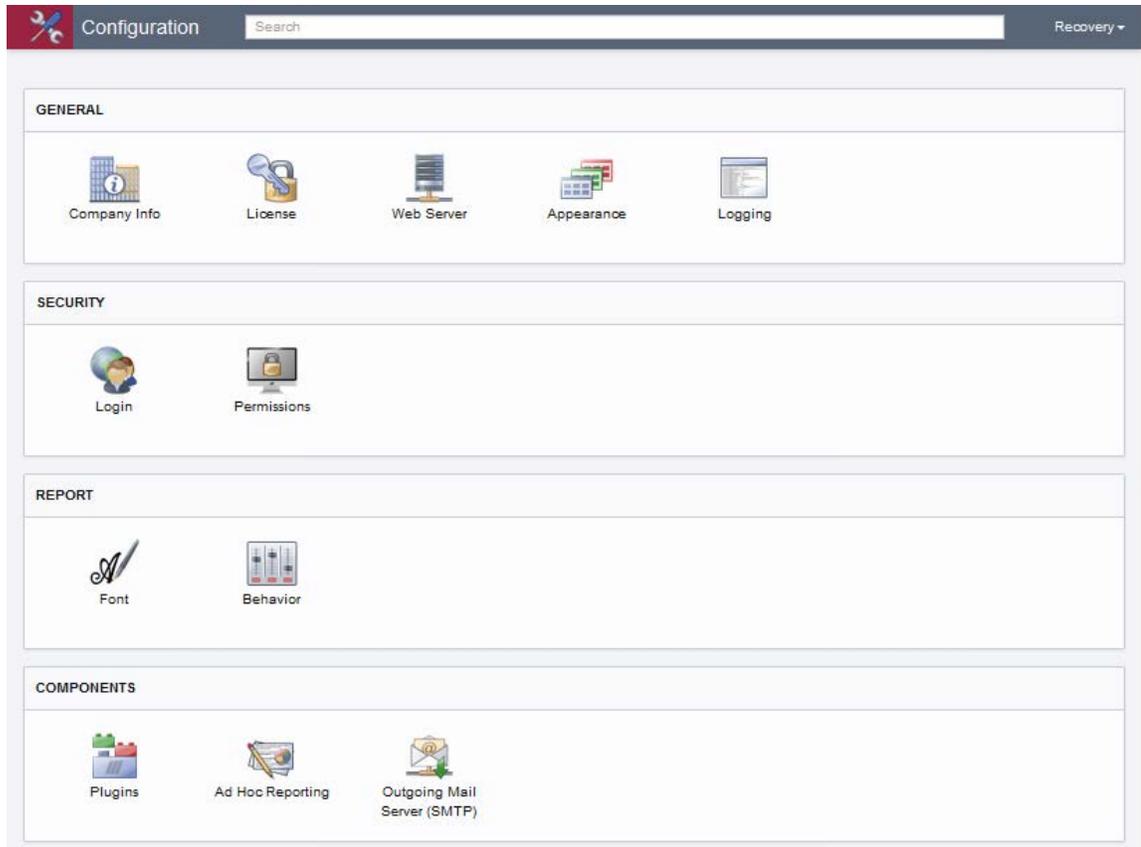
```
cd /opt/mitratech/deploy/weblogicapps/InetConfigurationManager
```

4. Type the following command:

```
java -jar ClearReports.jar
```

i If you have not set the **JAVA_HOME** environment variable, run **java.exe** from the directory in which it was installed (typically `C:\Program Files\Java\jdk1.8.\bin`).

The **Configuration** window appears.



5. Click the **Recovery** dropdown in the upper right corner and select the *Advanced View*.
6. In upper right corner, click **Manage**.
7. In the **User** area, create a new configuration named **Default**.
8. Save and close the **Manage Configurations** dialog box.
9. Switch to the Default configuration.



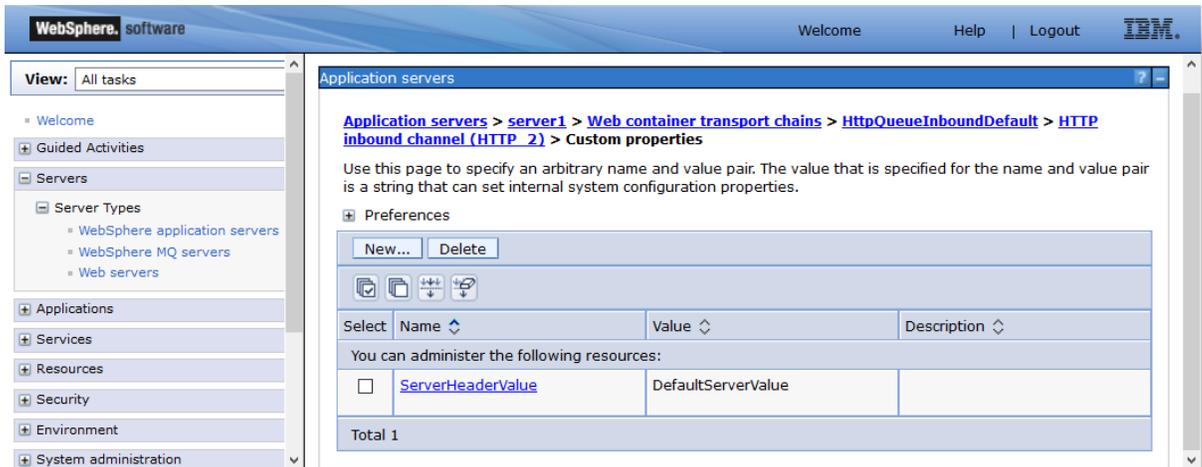
10. Click the **License** component, click the **Add a License Key** button, and select *Enter a License Key*.
11. Type the license key and click **OK**, and then click **Save**.
12. Click the **Behavior** component, select the default rendering format (HTML, Java, or PDF), and click **Save**. If users are using Microsoft Edge or Google Chrome, do not select Java as the default rendering format.

Note: If HTML is selected as the default rendering format and you are using WebSphere, add the following custom property to the transport chain that is serving Suite:

Name: ServerHeaderValue

Value: DefaultServerValue

In this example, for this instance of Suite, the transport chain is HttpQueueInboundDefault:



! The Web service must be restarted after configuring i-net Clear Reports.

Configuring SAP BusinessObjects Business Intelligence Platform

***** Premium feature – A registration key code is required to activate.

Suite includes an integration with SAP BusinessObjects Business Intelligence Platform. When implemented, your company has the ability to run all standard and custom Crystal Reports through the Suite using BusinessObjects Business Intelligence platform 4.1 SP3. Contact your Mitrastech Account Manager for information concerning the licensing of BusinessObjects.

Two components exist in Suite's integration with BusinessObjects. Both of these components require the installation of the SAP BusinessObjects Business Intelligence Platform software onto the local network environment.

Because the Suite is fully integrated with the SAP BusinessObjects Business Intelligence Platform, security is carried over from the eCounsel or Secretariat application into all report templates and Analysis Center reports. Therefore, matter Logical Group, private matter, and database access security is obeyed for eCounsel and WorldView security is obeyed for Secretariat.

Crystal Reports

The SAP BusinessObjects Business Intelligence Platform is the server-side engine that powers Crystal Reports templates, which are run through the eCounsel and Secretariat applications. All standard reports for the Suite are provided in Crystal Reports 14. Refer to the *Suite Manager Administrator Guide* for more details on importing BusinessObjects Crystal Reports.

Analysis Center

Analysis Center is BusinessObject's Web-based (DHTML) query and analysis tool that provides you with a simple WYSIWYG report creation environment and easy-to-use interface. Analysis Center gives you the ability to drill down into data and the ability to customize reports without programming. The Analysis Center interface is based on the creation of *universes*, BusinessObjects' semantic layer that allows the designer to organize data using business language rather than data language, thus reducing the complexity for the business user.

Universes

When you purchase Analysis Center to be used with Suite, Mitratech provides a standard universe, which maps the data in your database to an easy-to-use interface within Analysis Center to make exploring data simple. When you create an ad-hoc query in Analysis Center, you are connecting to the universe and running the query against the database. In effect, you can analyze data and create reports using the objects in a universe without seeing, or having to know anything about, the underlying data structures in the database.

When creating a query, the universe contains the following elements:

- Objects – Retrieves the data that is the basis for analysis in a report (such as entity names, matter names).
- Classes – Objects are grouped into folders called classes. Each class also can contain one or more subclasses. The role of classes is to organize the objects into logical groups. When you create queries on the universe, classes help you to find the objects that represent the information that you want to use in a query.
- Subclasses – Contain objects that are a further subcategory of the objects in the upper level of the class.

In order to use Analysis Center within Suite, the universe must reside on the BusinessObjects server. A BusinessObjects client installation, called Universe Design Tool, is required to export a universe(s) to the BusinessObjects server. The BusinessObjects client installation files are located on the BusinessObjects installation media provided to you by Mitratech.

Queries

A query is one or more statements that request data from a database. A request can be simple (for example, which entities are billing entities), or more complicated (for example, which matters have costs of more than \$10,000).

If the data is available, then the requested data is returned in the form of a table that contains rows and columns. If no data is currently available for an object, the table rows and columns appear empty.

Using Universe Design Tool to Export a Universe

When launching Universe Design Tool, a prompt will appear requesting login credentials to the BusinessObjects server. The login credentials must provide access rights to upload a universe to the BusinessObjects server. Custom universes can be requested as a Mitratech service.

A specific naming convention is required when exporting the universe to the BusinessObjects server. The universe name must include the universe name, Suite product, and unique database identifier. For example, for eCounsel a universe may be named as follows:

Matter Invoice – eCounsel – Suite8

where *Matter Invoice* is the name of the universe, *eCounsel* is the name of the Suite product, and *Suite8* is the unique database identifier.

A sample universe name for Secretariat may be as follows:

Entity – Secretariat – CorpSecr

where *Entity* is the name of the universe, *Secretariat* is the name of the Suite product, and *CorpSecr* is the unique database identifier.

Remember, the universe must be named and exported to the BusinessObjects server as stated above in order for the universe to appear within eCounsel or Secretariat.

Installing SAP BusinessObjects Business Intelligence Platform

See the installation guide for BusinessObjects. If you need assistance during installation, contact Mitratech at 888-664-0005 or by e-mail at support@mitratech.com.

Deploying the Suite BusinessObjects .war/.ear File

You will need to deploy the .war/.ear file labeled **suite-boxir4** located in the appropriate directory on the Suite installation media for the Java application server.

To confirm the version of the deployed Suite BusinessObjects .war/.ear file, enter the following in a Web browser:

<http://<ServerName>:<Port>/<Context>/AdminServlet?cmd=about>

where:

- *<ServerName>* is the name of the server on which the Web application resides
- *<Port>* is the number for the port used for communication with the Java application server
- *<Context>* is the name of the Suite BusinessObjects .war or .ear file

! The Suite BusinessObjects Web application must be on the same Java application server as the Suite Web application in order to run reports or import new report templates. In addition, the Suite BusinessObjects Web application must be able to access the Data Root for the Suite Web application to be able to import new report templates.

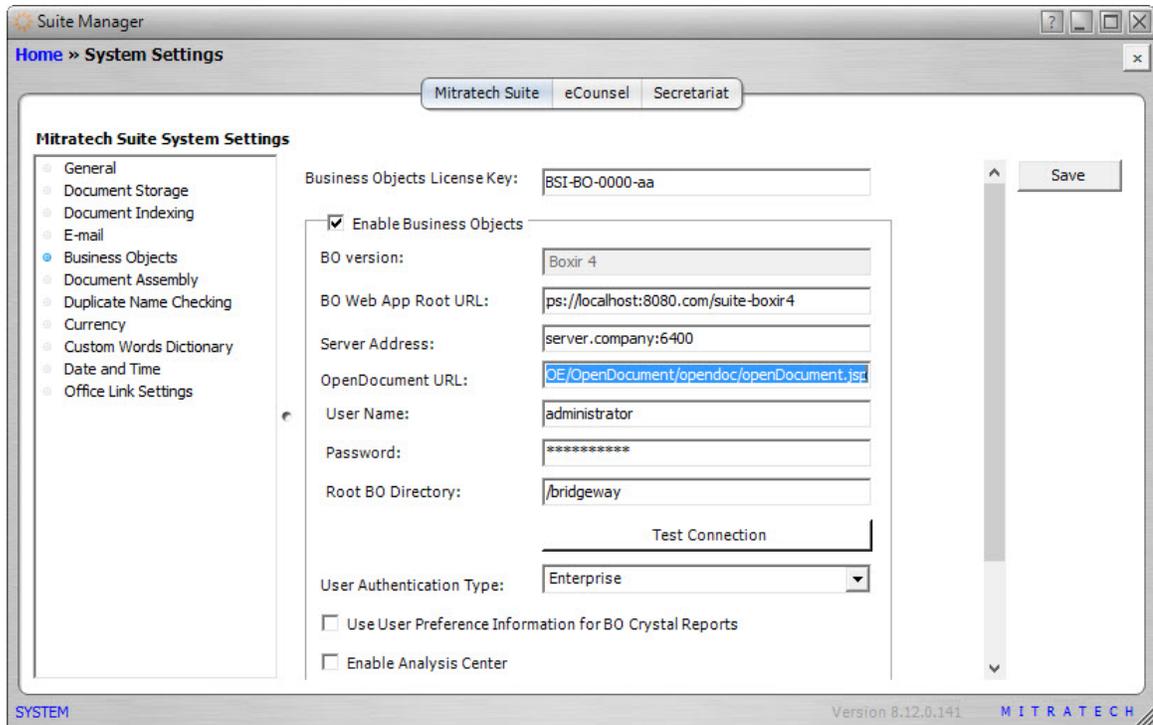
Enabling BusinessObjects

! Prior to enabling BusinessObjects, you must deploy the Suite BusinessObjects .war/.ear file mentioned in the previous section.

After obtaining a Suite integration license key, login to Suite Manager as a user that has the System Settings Administration security applied and do the following:

To Configure BusinessObjects:

1. Open Suite Manager.
2. Click on the  **System Settings** component.
3. On the **Suite** tab of the **System Settings** window, click the **BusinessObjects** settings.



4. Type the code given to you by Mitratech in the BusinessObjects License Key text field.
5. Click the *Enable BusinessObjects* checkbox to select it (the license key is verified when selecting this checkbox). If a checkmark does not appear, the license key may have been entered incorrectly. Verify the key and re-enter.
 - i** If you are unchecking the checkbox to disable BusinessObjects, make sure to remove any text from the BusinessObjects BO Web App Root URL text box or the Web application will continue to execute when you log out of eCounsel or Secretariat.
6. Type the complete URL path to the deployment of the Suite BusinessObjects Web application.
 - i** Do *not* use the SiteMinder-specific URL as a value for this field. Suite communicates with the BusinessObjects Web application using URL strings, and authentication only occurs when data is supplied to BusinessObjects to execute a report. SiteMinder authentication is not used during this process. In addition, when using SiteMinder login authentication, the BO Web App Root URL should be defined on the Webserver to redirect to the application server to avoid a port conflict (for example, the URL would be specified as <http://server/boxir4>).
 - !** Make sure the value for the Suite BusinessObjects Web application does not have a trailing forward slash.
7. Type the name of the BusinessObjects server, the system user name and password for the server, and the path to the root BusinessObjects directory.
8. Select the user authentication type that will be used for authenticating users when running BusinessObjects reports or using Analysis Center. If you select *Enterprise*, you must associate BusinessObjects user accounts with each Suite user. Currently, the Suite/BusinessObjects integration supports *SiteMinder using LDAP*. For this authentication type, you will need to configure security attributes for those users or groups who will be editing Analysis Center reports and/or accessing BusinessObjects BI Launch Pad.

9. If using the *Enterprise* user authentication type and running standard reports with named licensing, check the *Use User Preference Information for BO Crystal Reports* box. The user name and password for the named account will be used from the account entered in the *Preferences* area of the **Tools** page of the specific Suite application.
10. Enter the license key for Analysis Center, then click the *Enable Analysis Center* checkbox to select it. The license key is verified when selecting this checkbox. If a checkmark does not appear, the license key may have been entered incorrectly. Verify the license key and re-enter. Additional configuration of users is required for Analysis Center.
11. If BI Launch Pad is deployed, users of Analysis Center can be configured so that ad-hoc reports can be created in BI Launch Pad and uploaded to the Reports module. Type the full URL to the location from which BI Launch Pad is accessed within your site (for example, http://<BOE_Server_Name>:<Port>/BOE/BI/logon/start.do), and then click the **Test InfoView/BI Launch Pad URL** button to verify the location. If no users have BI Launch pad access, this field can remain blank.
12. Click **Save**.

To Configure Analysis Center for Each User:

Each Suite user must have a unique BusinessObjects user name and password in order to access Analysis Center or run Analysis Center reports from the Reports module. In addition, two new security attributes determine if a user can edit Analysis Center reports and access BI Launch Pad from Analysis Center.

1. Click the  **Users/Groups** component in Suite Manager.
2. Click a user name, and then click **Edit** to modify an existing account.
3. On the **Edit User** dialog box, type a unique BusinessObjects user name and password.

- Click **Validate BusinessObjects Login Information** to verify the BusinessObjects user name and password.

User » Nicholas Petersen

Base Info | Membership | Security Attributes

Login Name: Save

User Name: Summary

Password:

Confirm Password:

Last Login Date: 04/18/2011 03:45 PM

Last Login Program: eCounsel

Distinguished Name: ...

Associated Person: ... X

Expiration Date:

Locked Out:

Inactive:

Reason for lock out:

Business Objects User Name:

Business Objects Password:

- Click on the **Security Attributes** tab.
- Set the *Allow Analysis Center Editing* security attribute to *Allow* for any user that can edit Analysis Center reports.
- Set the *Allow InfoView/BI Launch Pad Access* security attribute to *Allow* for users that can access BI Launch Pad from Analysis Center to create and publish reports.

User » Nicholas Petersen

Base Info | Membership | Security Attributes

Bridgeway Suite

- eCounsel
- Secretariat
- Suite Manager
- SuperViewer

Security Attribute	Inherited Access	Override Access	Cumulative Access
Allow Analysis Center Editing	Allow	Allow	▼ Allow
Allow Hot Adds	Allow	Allow	▼ Allow
Allow InfoView / BI Launch Pad Access	Allow	Allow	☑ Allow
Change Other Users' Passwords	Allow	Allow	▼ Allow
Database Access	Unlimited	Unlimited	▼ Unlimited
Duplicate Records Checking		Allow	▼ Allow

Save Edit

- Click **Save**.

Configuring HotDocs

The purpose of this section is to provide instructions for installing and configuring HotDocs with the default templates included with Suite. A single license for HotDocs Developer 11 is included with the Secretariat license. It is optional and *separately licensed* for eCounsel. Contact Mitrtech Support for licensing information.

Deploying HotDocs

The following requirements are necessary to generate and work with documents in Suite:

- A HotDocs Server must be configured to execute the templates. Mitrtech provides a hosted HotDocs Server solution. Contact Mitrtech Support for more information.
- Microsoft Word must be installed on each user's computer that will be viewing the completed documents.
- HotDocs Developer 11 must be installed on each user's computer that will be creating and publishing templates. A single license for HotDocs Developer 11 is included with the Secretariat license. It is optional and *separately licensed* for eCounsel. Contact Mitrtech's Support department for licensing information.

To Configure HotDocs:

1. Contact Mitrtech's Customer Support department to create an account on the hosted HotDocs server (888-664-0005 or support@mitrtech.com).
2. Configure the **Document Assembly** settings in the **System Settings** component of Suite Manager with the HotDocs server information.
3. When your HotDocs server account is created, import the templates from the installation media for Secretariat.
4. Install HotDocs Developer on the computer (see below) of a user who will be creating and publishing templates.

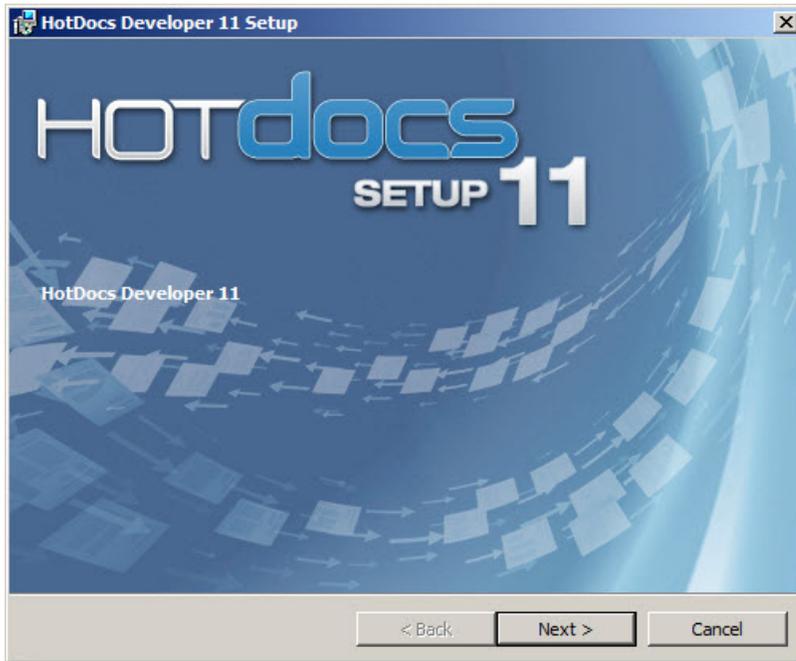
Installing HotDocs Developer

To create and publish templates in HotDocs, HotDocs Developer needs to be available from each user's computer who will be creating, testing, and publishing the templates.

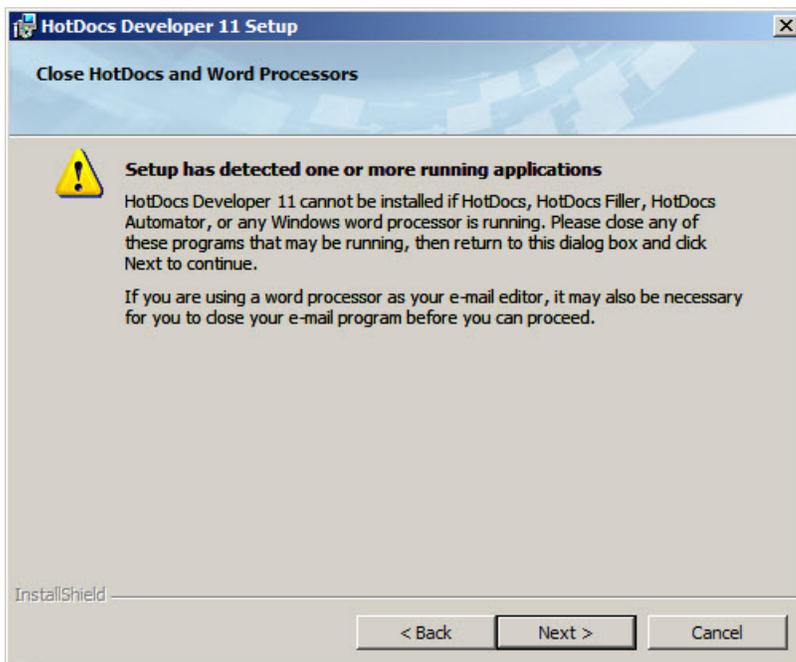
To Install HotDocs:

1. Run the HotDocs Developer installation.

2. Click **Next** on the HotDocs splash screen.



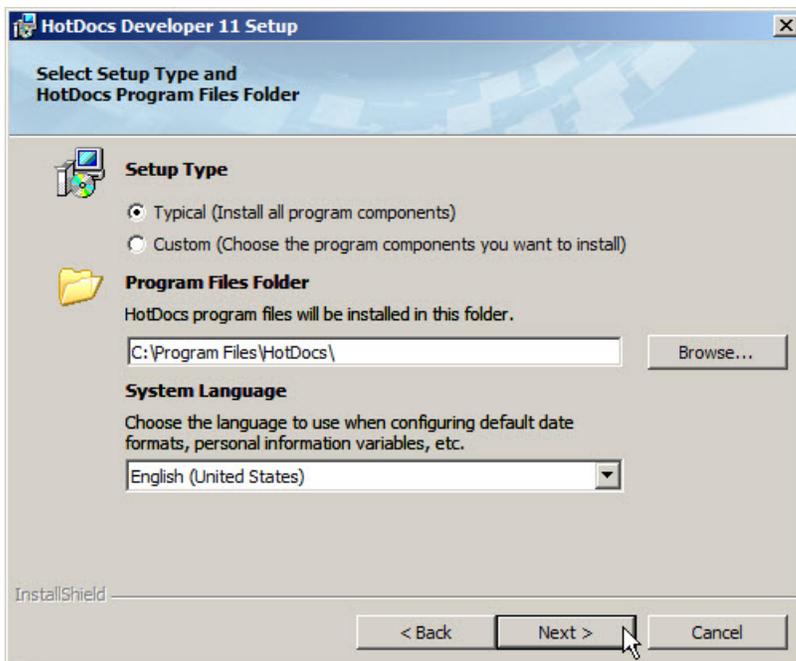
3. A warning will display reminding you to close all open programs, particularly any Microsoft Office programs. Follow the instructions on the screen, then click **Next**.



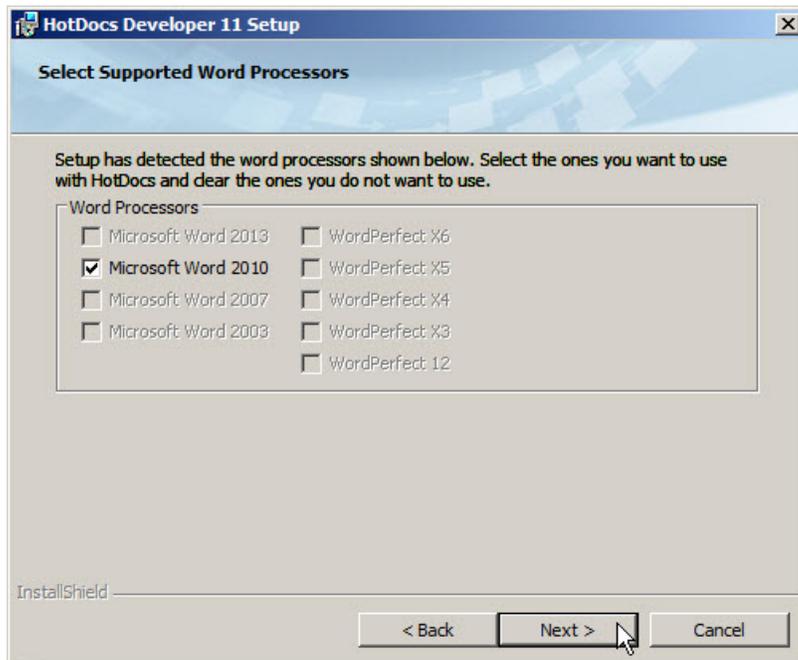
4. On the **Software License Agreement** screen, scroll down to view the entire agreement and click *I accept the terms in the license agreement*, then click **Next**.



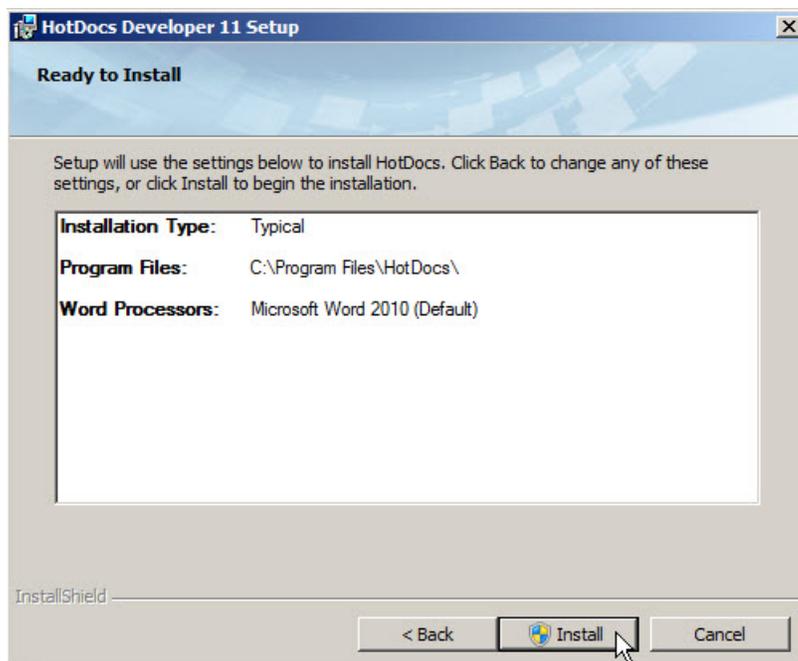
5. On the **Select Setup Type and HotDocs Program Files Folder** screen, click **Next** to accept a *Typical* installation and the default location.



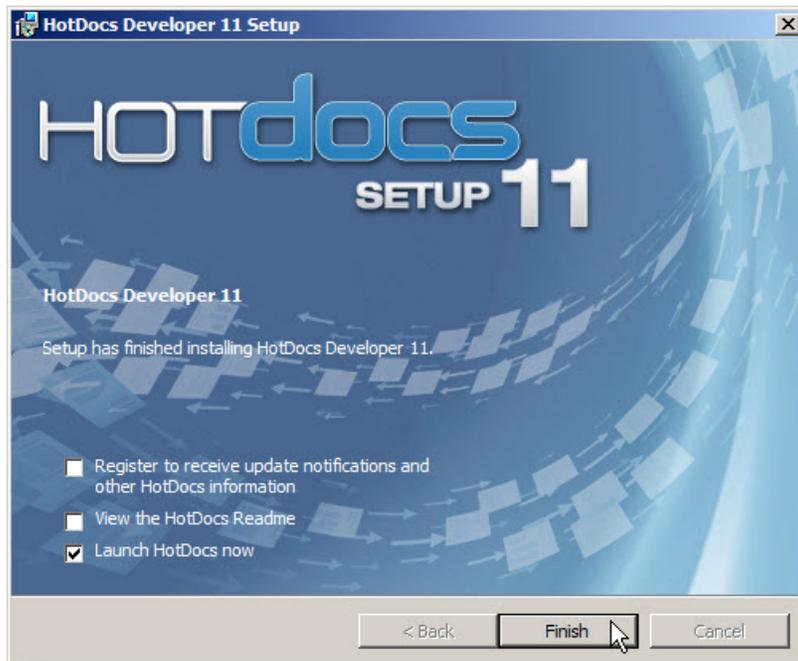
6. On the **Select Supported Word Processors** screen, select the appropriate program(s), and click **Next**. This identification allows integration between HotDocs templates and the word processor.



7. On the **Ready to Install** screen, verify that the information is correct and click **Install** to continue or click **Back** to change a setting.



8. On the last screen, click **Finish**. Clear the *Register* checkbox, if desired; registration is not required.



Configuring SiteMinder

The SiteMinder Single Sign-On (SSO) agent is a supported integration method for Suite. The third-party product CA SiteMinder (Single Sign-On) is an application suite in many components that must be configured to understand what resources it “protects” and allows for SSO. Mitratesh uses this product integration to allow its clients to provide Web-based authentication and authorization through the SiteMinder SSO Agent and then trusts that authorized session for access to Suite applications.

The following components are needed for integration:

- Policy Server (see page 81)
- Web Agent (see page 82)
- Suite Integration (see page 86)

Configuring the SiteMinder Policy Server

The SiteMinder Policy Server runs on any number of supported platforms (as defined by CA) ranging from Microsoft Windows 2003 to various UNIX versions, Linux, etc. Suite’s integration with the policy server is non-specific as the products only directly interact with the Web Agent. Functionally, the policy has the following components:

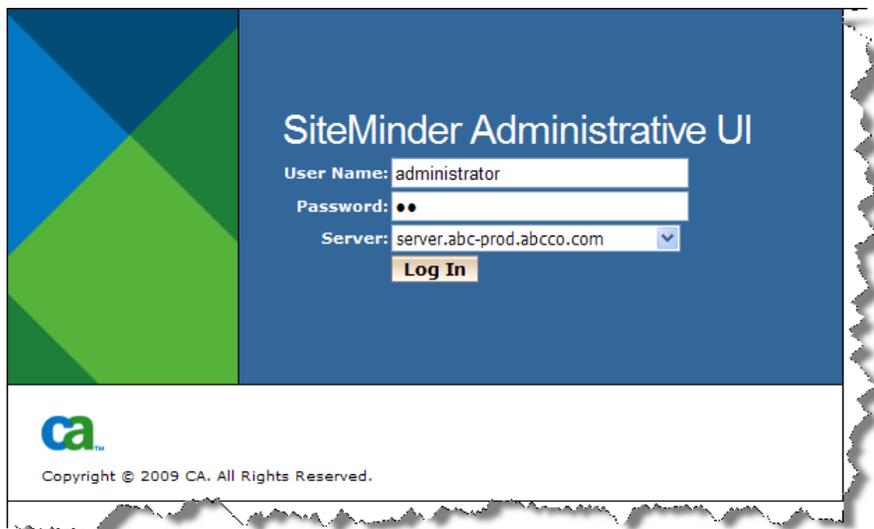
- Agents – configuration sets
 - Realms – based mostly on which application context is being protected
 - Rules – gets, posts, puts
 - Responses – bindings for responding to requests

- Trusted Hosts – where Web Agents reside
 - Web Agents on Web application servers (Tomcat, WebLogic, WebSphere, and others)
- Domains – which to authenticate
 - Active Directory
 - LDAP
 - etc.
- Authentication Schemes – get bound to the agent realm
 - Basic Authentication
 - Web Forms

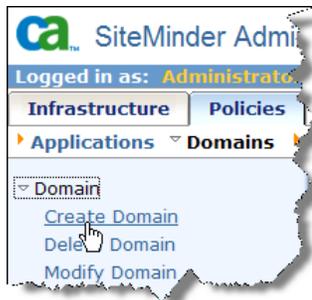
! Configuring this integration assumes the client already has a SiteMinder Web Agent properly installed on the Web server and an authentication scheme defined.

To Configure the SiteMinder Policy Server:

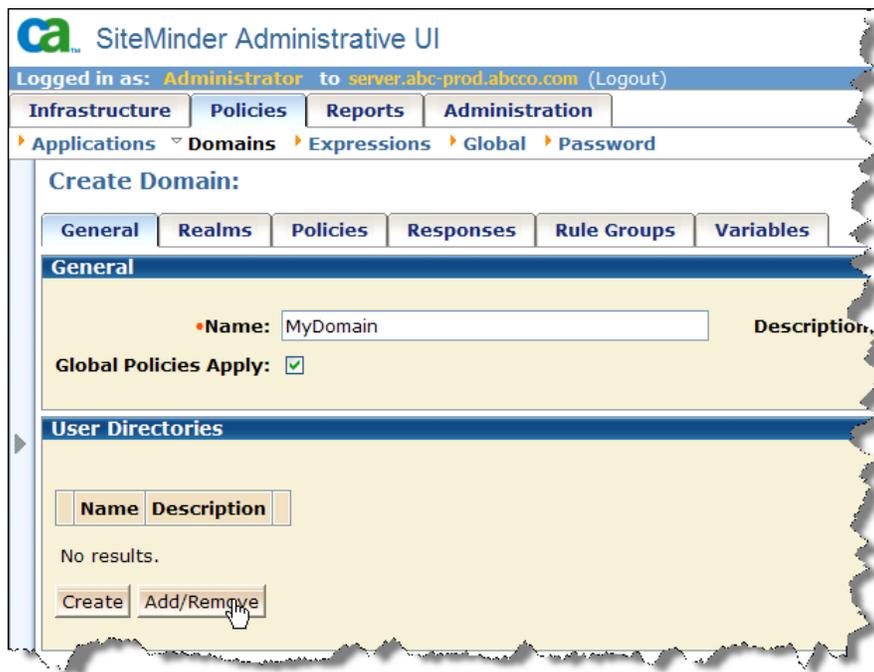
1. Login to the SiteMinder Administrative UI.



2. Click on the **Policies** tab, click on the **Domains** link, and expand the *Domain* section. Click on the **Create Domain** link.



3. On the **Create Domain** page, type the name of the domain.
4. Click the **Add/Remove** button in the *User Directories* section.



5. Select the available member user directory and click the right arrow button to move it to the *Selected Members* list. Click **OK**.
6. On the **Create Domain** page, click on the **Realms** tab.
7. Click the **Create Realm** button.



8. On the **Create Realm** page, type the name of the realm.

9. In the *Resource* section, select an agent, type a resource filter (the context of the Suite application, typically “Suite”), and select the previously defined authentication scheme.

Create Realm: MyRealm
Create Domain: MyDomain > Create Realm: MyRealm

General

•Name: MyRealm Description:
Domain: MyDomain

Resource

•Agent: abc-web-central-agent
Resource Filter: /Suite
Effective Resource: abc-web-central-agent/Suite
Default Resource Protection: Protected Unprotected
Authentication Scheme: HTML Form Template Auth Scheme

Rules

10. In the *Rules* section, click the **Create** button.

11. On the **Create Rule** page, type the name of the rule, then select the *Put*, *Post*, and *Get* actions.

Create Rule:
Create Domain: MyDomain > Create Realm: MyRealm > Create Rule:

General

•Name: MyRule Description:
Domain: MyDomain

Attributes

Realm and Resource

Resource: /*
Effective Resource: abc-web-central-agent/Suite/*
Regular Expression:

Allow/Deny and Enable/Disable

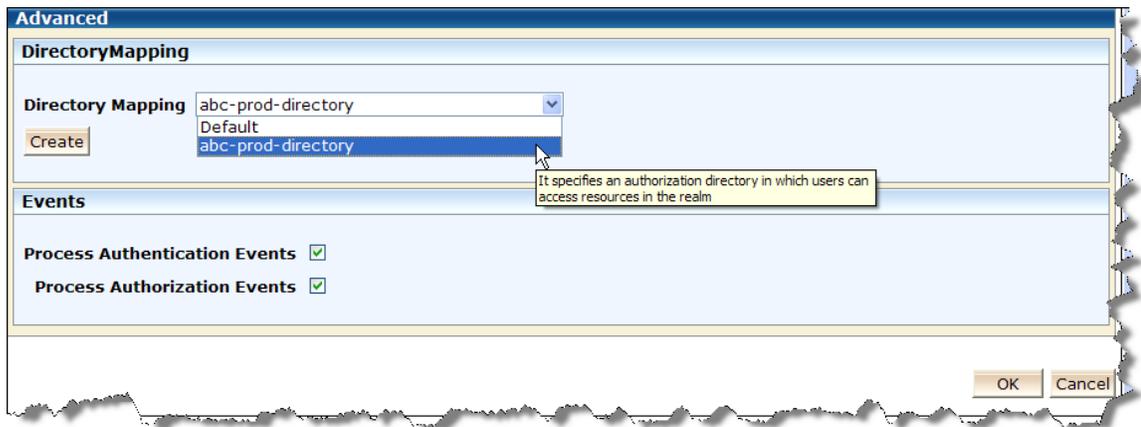
Allow Access
 Deny Access
Enabled

Action

Web Agent actions
 Authentication events
 Authorization events
 Impersonation events

•Action: ProcessSOAP
Put
Post
Get

12. On the **Create Rule** page, click **OK**.
13. On the **Create Realm** page, select the directory mapping in the *Advanced* section.



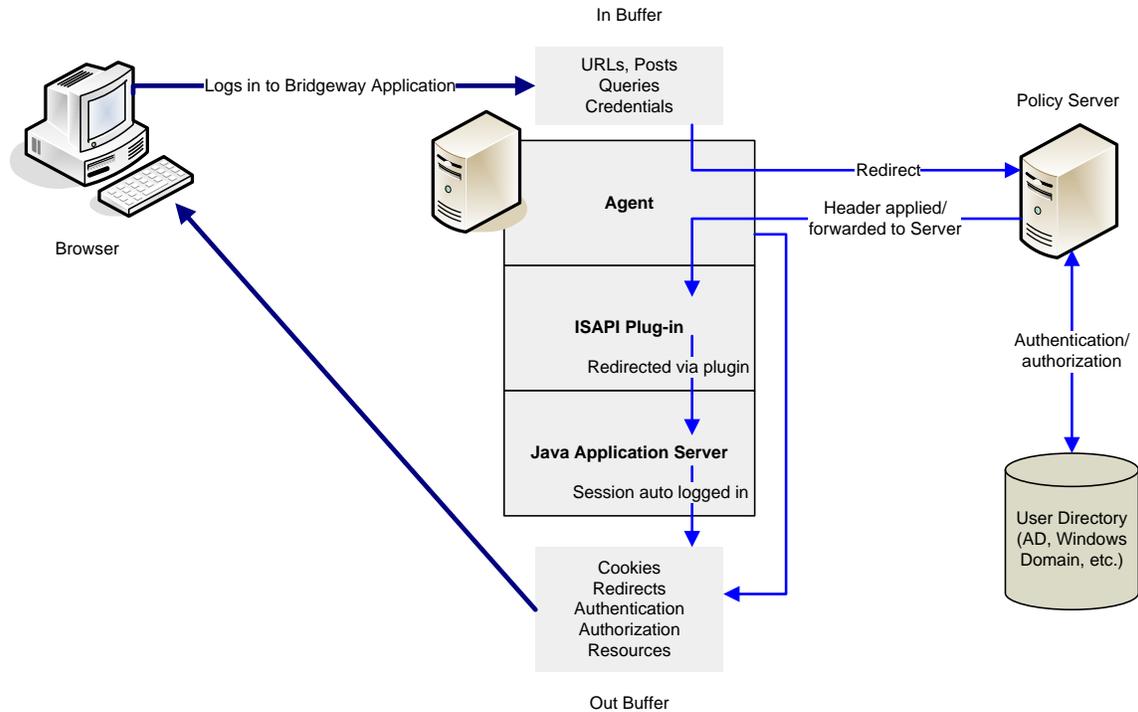
14. On the **Create Realm** page, click **OK**.
15. On the **Create Domain** page, click **Submit**.



16. Click **OK**.

Configuring a Web Agent

A Web Agent is applied to an HTTP Server endpoint. It performs much as the Tomcat ISAPI filter does when IIS is configured with Apache Tomcat for Suite (see “Configuring IIS for Tomcat” on page 15 or “Configuring IIS for WebSphere” on page 39). The Agent “listens” on port 80 for requests coming to the server. It is not “aware” of the context that is being “protected” by the realm on the Policy Server, so it forwards all *unique* requests to the Policy Server. The Web Agent then caches the response information for a set amount of time (configurable). “Protected” contexts are fed to the policy server for authentication and authorization by the User Directory. The response from the Policy Server includes a header variable for the response to be fed to the Web application server that carries the user's ID.

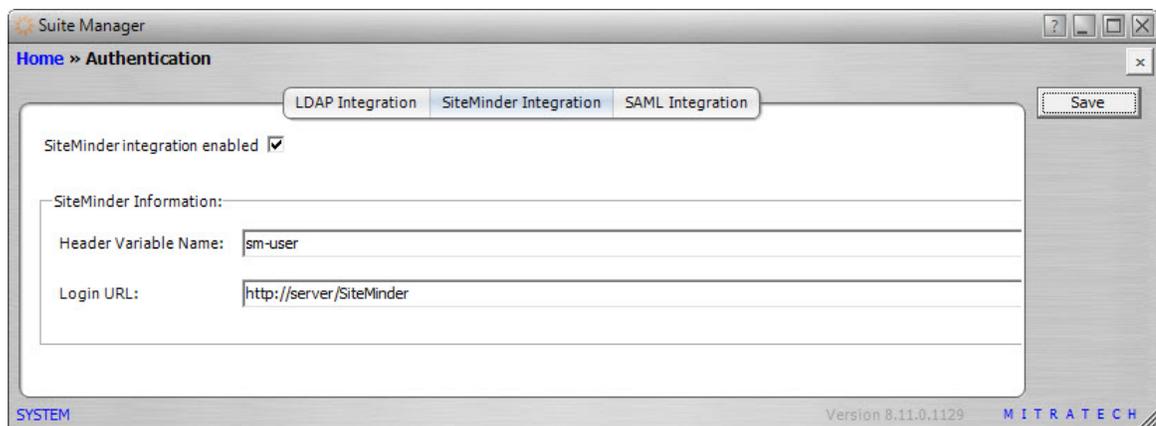


Configuring SiteMinder in Suite Manager

The Suite Integration to SiteMinder is simply to “watch” for the header variable attached to a request to the Suite application. In Suite, the header variable is configured in the **Authentication** component of Suite Manager.

To Configure SiteMinder in Suite Manager:

1. Open Suite Manager.
2. On the **Suite Manager** control panel, click on the  **Authentication** component in the **Security** area.
3. On the **Authentication** window, click on the **SiteMinder Integration** tab.
4. Click on the *SiteMinder integration enabled* checkbox to select it.



5. Type the name of the header variable (for example, `SM_USER` if you are using an Apache Tomcat or IBM WebSphere Java application server) in the text box.
6. Type the URL for the SiteMinder Web application. This URL is used to re-direct users to the SiteMinder login when a Suite application session times out.
7. Click **Save**.
8. Close the **Authentication** component and click on the **System Settings** component.
9. On the **System Settings** window, click the **Refresh All Application Server Settings** button.

To Assign SiteMinder IDs to Users:

Map each user who will be authenticated using SiteMinder by adding the user's attribute (login) to the SiteMinder ID field in the Users/Groups component of Suite Manager.

Disabling User Logins through the Login Page

When integrating with SiteMinder authentication, the **Login** page can be disabled so users automatically login through SiteMinder.

To Disable Suite Login:

1. Use Notepad or a similar text-editing program to open the `darwin.properties` file in the `<Install>\<Context>\WEB-INF\classes\com\bsi\attributes` directory, where `<Install>` is the installation directory for Suite on the Web server and `<Context>` is the name of the `.war` or `.ear` file). For example:
`C:\tomcat8\webapps\suite8\WEB-INF\classes\com\bsi\attributes` directory.
2. Type the following:

```
#Set to true to not allow user logins through the login page - For Siteminder  
integration  
  
DisableLoginPage=true
```
3. Click the **File** menu and select *Save*.
4. Restart the Web service.

For more information about the properties files, see “Appendix A: Setting Properties” on page 123.

Integrating a Document Management System

The **DMS** tab within Suite provides an interface between Suite and a Document Management System (DMS), which catalogs or indexes electronic files to facilitate access and version control.

For Suite 8.8 and later, third-party document management systems are no longer supported directly. Integration with document management systems is now handled by the *Web Page Container* widget. For more information see the *Web Page Container Widget Integration Overview*.

Upgrading Suite

Overview

The purpose of this chapter is to provide instructions for upgrading Suite 8.x to a higher version. **Review this chapter carefully.**

! This chapter does not provide instructions for upgrading a version of Suite prior to version 8.x.

Before You Begin

- Upgrading the database is an individualized process requiring specific scripts and instructions. A database upgrade is a controlled process and your design is kept intact during a database upgrade. Contact Mitrtech at 888-664-0005 or by e-mail at support@mitrtech.com.
- Review the *Read me* and *Release Notes* documents on the installation media.
- This document assumes that the default directories were accepted when the Web server and the Suite applications were installed.
- Exit all applications. We also recommend that you disable any antivirus applications that may be running.
- If you were using Bridgeway E-mail Link or Bridgeway Calendar Link, disable these features in Suite Manager before upgrading. If you do not disable them before upgrading, you will need to create and run a database script to disable these integrations prior to setting up Mitrtech Office Link

Configuring UTF-8 Support

In order to support international characters in advanced search, the Java application server must be configured to support single byte UTF-8 (8-bit UCS/Unicode Transformation Format). In addition, the database also must support UTF-8 and must be converted if needed.

Upgrading Suite on an Apache Tomcat Server

If you are upgrading your version of Apache Tomcat Server, see the section “Upgrading the Tomcat Application Server” on page 11 before proceeding.

Stop the Apache Tomcat Service

Stop the Apache Tomcat service. For Microsoft Windows, click **Start** from the Windows task bar and point to **All Programs > Administrative Tools > Services** to open the Services window. Highlight and stop *Apache Tomcat*.

Backup the Current Installation of Suite

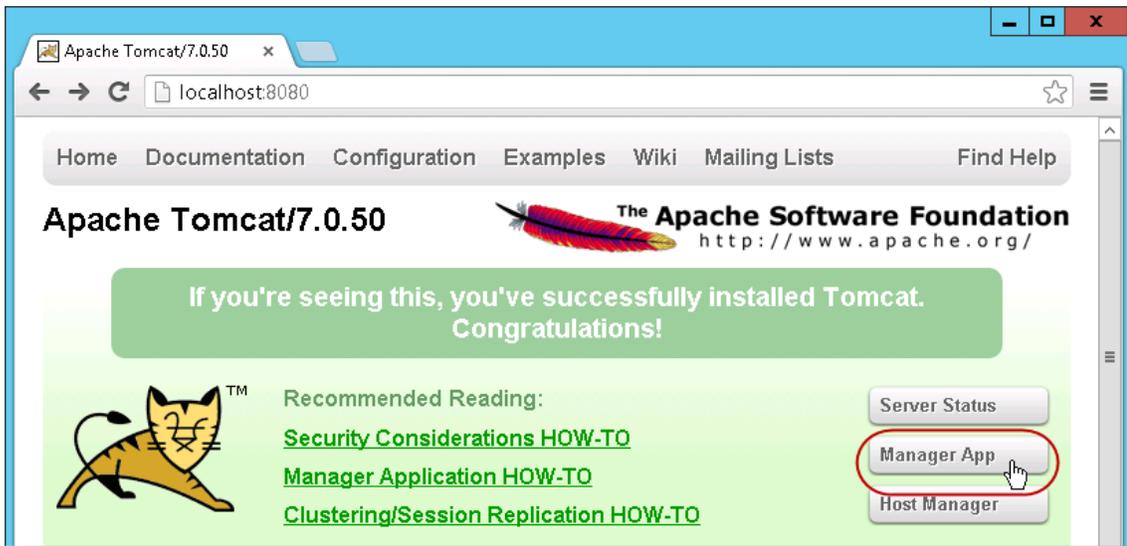
1. Copy the Apache Tomcat application folder for Suite from `<Install>\webapps\<Context>` to `<Install>\<BackupDirectory>\<Context>`, where `<Install>` is the installation application directory for the Web server (by default, `C:\tomcat6` for Microsoft Windows), `<BackupDirectory>` is a subdirectory

you create within the Apache Tomcat deployment to store backups (such as `C:\tomcat6\backup`), and `<Context>` is the name of the `.war` file (typically, `Suite8`).

- Copy the `<Context>.war` file (typically, `Suite8.war`) from `<Install>\webapps\<Context>` to `<Install>\<BackupDirectory>`.

Undeploy the Current Suite Application

- Start the Apache Tomcat service. For Microsoft Windows, click **Start** from the Windows task bar and point to **Programs > Administrative Tools > Services** to open the **Services** window. Highlight and start *Apache Tomcat*.
- Launch the Tomcat Administrative Console.
- Click the **Manager App** button on the Tomcat console page.



- On the **Tomcat Web Application Manager** page, click the **Undeploy** button on the Commands column for the Suite application to be decommissioned.



- Click **OK** to confirm removal of the application.

Install the Suite Upgrade

- Copy the `.war` file from the **Tomcat** directory on the installation media to the server computer.
- Rename the file to the same context as was used during the installation (for example, `Suite8.war`).

i If you do not use the same context as the original installation on Microsoft Windows, you will need to stop the World Wide Web Publishing service and install Suite using the instructions in “Apache Tomcat” on page 3.

3. On the **Tomcat Web Application Manager** page, scroll down to the *Deploy* area, and then go to the *WAR files to deploy* area. Click the **Browse** button; navigate to the location of the `.war` file, then click **Deploy**.
4. Verify that the `.war` file was successfully deployed by clicking the context path. This action will take you to the directory list for the Suite application on the server.

The Apache Software Foundation
http://www.apache.org/

Tomcat Web Application Manager

Message: OK

Manager

[List Applications](#) [HTML Manager Help](#) [Manager Help](#) [Server Status](#)

Applications

Path	Display Name	Running	Sessions	Commands
/	Welcome to Tomcat	true	0	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes
/boxir3	com.bridgeway.suite.report.boxir3	true	0	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes
/bsiupdater	Bridgeway Update Manager	true	0	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes
/suite8	Bridgeway Suite 8.8.0	true	0	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes

Click the **Suite8** context path link to open the directory list.

- Click the [\(with options\)](#) link next to [eCounsel](#) or [Secretariat](#). If the Mitrtech application license key page opens, the `.war` file was deployed successfully.

Application	License Key
eCounsel	<input type="text"/>
Secretariat	<input type="text"/>
SuperViewer	<input type="text"/>

- On the **Tomcat Web Application Manager** page, scroll down to the *Deploy* area, and then go to the *WAR files to deploy* area. Click the **Browse** button; navigate to the location of the Suite BusinessObjects Web application `.war` file, then click **Deploy**.
- Stop the Apache Tomcat service.

Copy Properties Files to New Installation

In order to retain information specific to your company, copy the following files from the backed up Suite application directory to the new upgrade folders, overwriting the existing files:

File	Directory
darwin.properties (contains customized settings such as time and date settings, etc.)	<code><Install>\webapps\<Context>\WEB-INF\classes\com\bsi\attributes</code>
dfs.enc (contains licensing information for Suite)	<code><Install>\webapps\<Context>\WEB-INF\classes\com\bsi\attributes</code>
client.htm (or name of files created when configuring user access to eCounsel, Secretariat, and/or SuperViewer)	<code><Install>\webapps\<Context>\</code>

In this table, `<Install>` is the installation application directory for the Web server (by default, `C:\tomcat6` for Microsoft Windows) and `<Context>` is the name of the `.war` file (typically, `Suite8`).

- i** For each application (eCounsel, Secretariat, and/or SuperViewer), a file can be created that end users can open to access the application. By default, the file is named `client.htm`. However, if you are using multiple Suite applications, this file may have other names (such as `ec.htm` and/or `secr.htm`). Make sure you do not copy over the `eCounsel.htm` and `Secretariat.htm` files or any other HTML files in the `webapps` directory.

Restart the Apache Tomcat Service

- i** To ensure that all new functionality works properly, delete the following items after upgrading Suite and prior to restarting the Apache Tomcat service:

- The contents of the `<Install>\work` directory. These temporary files may cause some features to cache older versions of the feature. Only delete the contents of this directory; do not delete the directory itself.
- The `<Install>\conf\Catalina` directory. This directory might not exist in your installation.
- The `<Install>\temp` directory.
- The `<Install>\bin\WEB-INF` directory. This directory might not exist in your installation.

where `<Install>` is the installation application directory for the Web server. On Unix servers, these sub-directories are found in Tomcat sub-directories; for example:

- `/var/cache/tomcat6/work/Catalina`
- `/var/cache/tomcat6/temp`
- `/etc/tomcat6/Catalina`
- `/usr/share/tomcat6/bin`

Restart the Apache Tomcat service. For Microsoft Windows, click **Start** from the Windows task bar and point to **Programs > Administrative Tools > Services** to open the Services window. Highlight and start *Apache Tomcat*.

i If you get an error message when using spell check or adding words to the dictionary, the server may not be able to locate the `tools.jar` file. Copy the `tools.jar` file from the `<JDKInstall>\lib` Web server folder (where `<JDKInstall>` is the path in which the JDK is installed (typically `C:\Program Files\Java\jdk1.6.0_32` for Microsoft Windows) and paste it into `<InstallPath>\Common\Lib`, where `<InstallPath>` is the path in which the Web server is installed.

Upgrading Suite on an Oracle WebLogic Application Server

Stop the Web Service

Stop the WebLogic Application Server service.

Backup the Current Installation of Suite

Rename the WebLogic folder for Suite from `<Install>/user_projects/domains/mydomain/<ServerName>/<Context>` to `<Install>/user_projects/domains/mydomain/<ServerName>/<Context>_old`, where `<Install>` is the installation application directory for the Web server, `<ServerName>` is the name of the server, and `<Context>` is the name of the directory created during installation (typically, **Suite8**).

Restart the Web Service

Start the WebLogic Application Server service.

Install the Upgrade

Follow the steps in “Oracle WebLogic Application Server” on page 25. Use the appropriate procedure for WebLogic version 11g or 12c.

Stop the Web Service

Stop the WebLogic Application Server service.

Copy Properties Files to New Installation

In order to retain information specific to your company, copy the following files from the backed up Suite application directory to the new upgrade folders, overwriting the existing files:

File	Directory
darwin.properties (Contains customized settings such as time and date settings, etc.)	<code><Install>/user_projects/domains/mydomain/<ServerName>/<Context>/WEB-INF/classes/com/suite8/attributes</code>
dfs.enc (contains licensing information for Suite)	<code><Install>/user_projects/domains/mydomain/<ServerName>/<Context>/WEB-INF/classes/com/bsi/attributes</code>
client.htm (or name of file created when configuring database access)	<code><Install>/user_projects/domains/mydomain/<ServerName>/<Context>/client.htm</code>

Where `<Install>` is the installation application directory for the Web server, `<ServerName>` is the name of the server, and `<Context>` is the name of the directory created during installation (typically, **Suite8**).

- i** For each application (eCounsel, Secretariat, and/or SuperViewer), a file can be created that end users can open to access the application. By default, the file is named **client.htm**. However, if you are using multiple Suite applications, this file may have other names (such as **ec.htm** and/or **secr.htm**). Make sure you do not copy over the **eCounsel.htm** and **Secretariat.htm** files or any other HTML files in the **webapps** directory.
- i** If you originally deployed the WebLogic Application Server in an environment with clusters, contact Customer Support for additional steps.

Configuring XML Parsers

To enhance the performance of the XML parsers when deployed on Oracle WebLogic, Mitrtech recommends the configuration steps below if you did not perform them during the initial installation.

To Configure XML Parsers:

1. Open the **darwinmaster.properties** file (located at `<Install>\<Context>\web-inf\classes\com\bsi\attributes`, where `<Install>` is the installation directory for Suite on the Web server and `<Context>` is the name of the **.war** file).
2. Find and copy the following line:

```
#javax.xml.transform.TransformerFactory=net.sf.saxon.TransformerFactoryImpl
```
3. Paste the line into the **darwin.properties** file (located in the same directory).
4. Remove the initial comment symbol “#” from the property to activate the property.
5. Save the file.

Restart the Web Service

Start the WebLogic Application Server service.

i If you get an error message when using spell check or adding words to the dictionary, the server may not be able to locate the **tools.jar** file. Copy the **tools.jar** file from the `<JDKInstall>/lib` Web server folder (where `<JDKInstall>` is the path in which the JDK is installed and paste it into `<InstallPath>/user_projects/domains/mydomain/<ServerName>/Common/Lib`, where `<InstallPath>` is the path in which the Web server is installed and `<ServerName>` is the name of the server.

Upgrading Suite on an IBM WebSphere Application Server

Stop the Web Service

Stop the IBM WebSphere service. For Microsoft Windows, click **Start** from the Windows task bar and point to **Programs > Administrative Tools > Services** to open the Services window. Highlight and stop the IBM WebSphere Server service.

Backup Properties Files

In order to retain information specific to your company, make a copy of the following properties files from the Suite Web application directory *before* installing the upgrade:

File	Directory
darwin.properties (Contains customized settings such as, time and date settings, etc.)	<code><Install>\<ServerName>\<Context>.ear\<Context>.war\WEB-INF\classes\com\suite8\attributes</code>
dfs.enc (contains licensing information for Suite)	<code><Install>\<ServerName>\<Context>.ear\<Context>.war\WEB-INF\classes\com\bsi\attributes</code>
client.htm (or name of file created when configuring database access)	<code><Install>\<ServerName>\<Context>.ear\<Context>.war\client.htm</code>

In this table, `<Install>` is the installation application directory for the Web server (by default, `C:\WebSphere\AppServer\installedApps`), `<ServerName>` is the name of the server, and `<Context>` is the name of the `.ear` file (typically, `Suite8`).

i For each application (eCounsel, Secretariat, and/or SuperViewer), a file can be created that end users can open to access the application. By default, the file is named **client.htm**. However, if you are using multiple Suite applications, this file may have other names (such as **ec.htm** and/or **secre.htm**). Make sure you do not copy over the **eCounsel.htm** and **Secretariat.htm** files or any other HTML files in the **webapps** directory.

Install the Upgrade

A `.ear` file resides in the `\WebSphere` folder on the installation media. Deploy this file using the methodology established for your WebSphere Web server.

Restore Properties Files

Copy the **crystalclear.properties**, **darwin.properties**, **dfs.enc**, and **client.htm** files back into the appropriate directories, overwriting the existing files.

Configuring XML Parsers

To enhance the performance of the XML parsers when deployed on IBM WebSphere, Mitratech recommends the configuration steps below if you did not perform them during the initial installation.

To Configure XML Parsers:

1. Open the `darwinmaster.properties` file, which is located in the following directory:

```
C:\Oracle\Middleware\Oracle_Home\user_projects\domains\base_domain
\servers\Suite8server\Suite8\WEB-INF\classes\com\bsi\attributes
```

Adjust the directories for any changes that you made to the WebLogic installation directory, server name, or the name of the `.war` file.

2. Find and copy the following lines:

```
#XML/XSLT plugins for Websphere
#javax.xml.transform.TransformerFactory=com.icl.saxon.TransformerFactoryImpl
#javax.xml.parsers.SAXParserFactory=org.apache.xerces.jaxp.SAXParserFactoryImpl
#javax.xml.parsers.DocumentBuilderFactory=
    org.apache.xerces.jaxp.DocumentBuilderFactoryImpl
```

3. Paste the lines into the `darwin.properties` file (located in the same directory).
4. Remove the initial comment symbol “#” from each line except the first to activate the property.
5. Save the file.

Restart the Web Service

Start the IBM WebSphere Server service. For Microsoft Windows, click **Start** from the Windows task bar and point to **Programs > Administrative Tools > Services** to open the Services window. Highlight and start the IBM WebSphere Server service.

- i** If you get an error message when using spell check or adding words to the dictionary, the server may not be able to locate the `tools.jar` file. Copy the `tools.jar` file from the `<JDKInstall>\lib` Web server folder (where `<JDKInstall>` is the path in which the JDK is installed and paste it into `<InstallPath>\AppServer\installedApps\<ServerName>\Common\Lib`, where `<InstallPath>` is the path in which the Web server is installed and `<ServerName>` is the server on which the Web application is installed.

Upgrading Suite Manager

Before reinstalling Suite Manager, uninstall the previous version. Then run the Suite Manager setup installation located under the **Suite Manager** directory on the Suite upgrade media on the system administrator’s workstation (or any applicable user’s workstation). See “Installing Suite Manager” on page 53 for instructions on running the setup program. Accept all the applicable defaults.

- i** Beginning with Version 8.2, a parameter to exclude invoice statuses from being routed has been added to the Invoice Routing task. The default setting for this task is “On Hold” and “Rejected” invoices. Change the configuration of the task in Suite Manager if your company wants invoices processed differently.

Upgrading i-net Clear Reports

Suite Version 8.11 and higher uses i-net Clear Reports (formerly i-net Crystal-Clear) 16 for running reports, which requires a new license key if you are upgrading from a previous version of Suite. Contact the Customer Support department to update your license key for configuration using the instructions below. You will need to provide the operating system and IP address of the Web server where Suite is installed and the number of processors.

In addition, a number of reports have been upgraded to work with the newer version of i-net Clear Reports and must be reimported. Instructions for importing the upgraded report templates are included on page 98.

- i** Custom reports must be converted to i-net Clear Reports 16 before they can be used in any of the Suite applications. This conversion is done using the ReportReader tool included in the `templates\i-net Crystal Clear Reports\Report Reader Tool` directory on the Suite installation media. In addition, i-net provides an application called i-net Designer that is free to download. Reports may be opened and updated using this tool. For more information, see the section “Upgrading Custom i-net Clear Reports Templates” on page 99.

Configuring the i-net Clear Reports Server

To Configure the i-net Clear Reports Server:

6. Copy the **InetConfigurationManager** folder from the **DVD** folder in the installation media and paste it in a convenient location on the machine with the i-net Clear Reports server.
7. If using a Microsoft Windows server, log in as the user that will be running the JVM and open a command prompt as an administrator. If using a Linux server, open the terminal and log in as the user that will be running the JVM.
8. Use a `cd` command to switch to the **InetConfigurationManager** directory. For example, in Microsoft Windows:

```
cd <Directory>\InetConfigurationManager
```

where *<Directory>* is the name of the path of the directory in which **InetConfigurationManager** folder was pasted. For example:

```
cd C:\InetConfigurationManager
```

For an example in Linux:

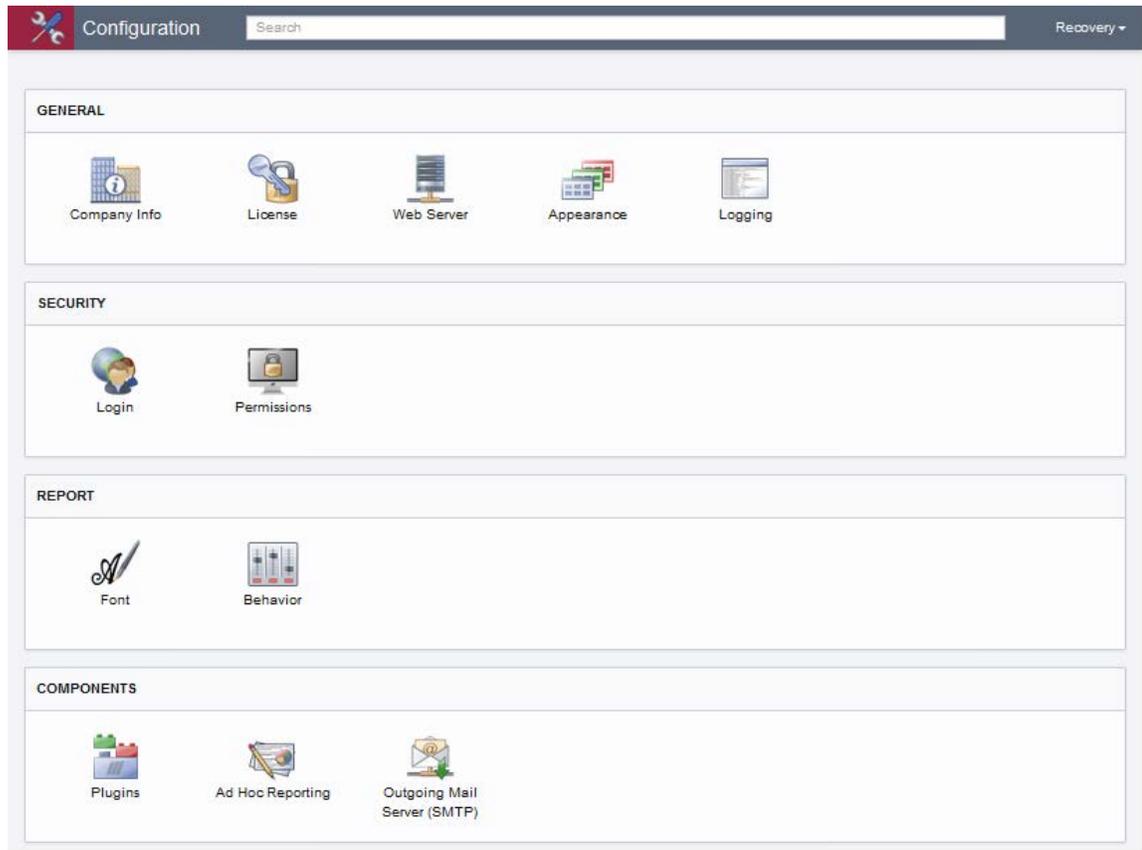
```
cd /opt/mitratech/deploy/weblogicapps/InetConfigurationManager
```

9. Type the following command:

```
java -jar ClearReports.jar
```

- i** If you have not set the **JAVA_HOME** environment variable, run **java.exe** from the directory in which it was installed (typically `C:\Program Files\Java\jdk1.8.\bin`).

The **Configuration** window appears.



10. Click the **Recovery** dropdown in the upper right corner and select the *Advanced View*.
11. In upper right corner, click **Manage**.
12. In the **User** area, create a new configuration named **Default**.
13. Save and close the **Manage Configurations** dialog box.
14. Switch to the Default configuration.

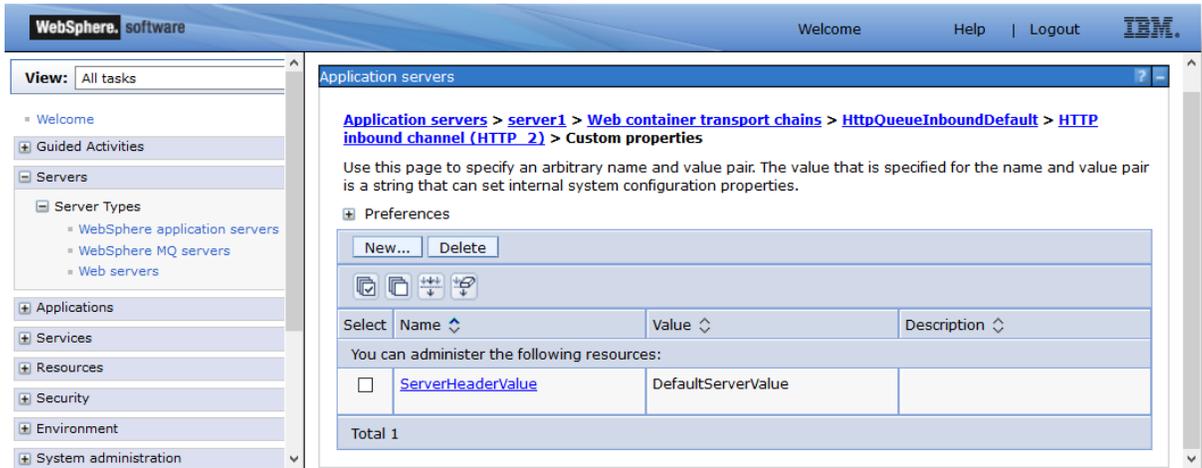


15. Click the **License** component, click the **Add a License Key** button, and select *Enter a License Key*.
16. Type the license key and click **OK**, and then click **Save**.
17. Click the **Behavior** component, select the default rendering format (HTML, Java, or PDF), and click **Save**. If users are using Microsoft Edge or Google Chrome, do not select Java as the default rendering format.

Note: If HTML is selected as the default rendering format and you are using WebSphere, add the following custom property to the transport chain that is serving Suite:

Name: ServerHeaderValue
Value: DefaultServerValue

In this example, for this instance of Suite, the transport chain is HttpQueueInboundDefault:



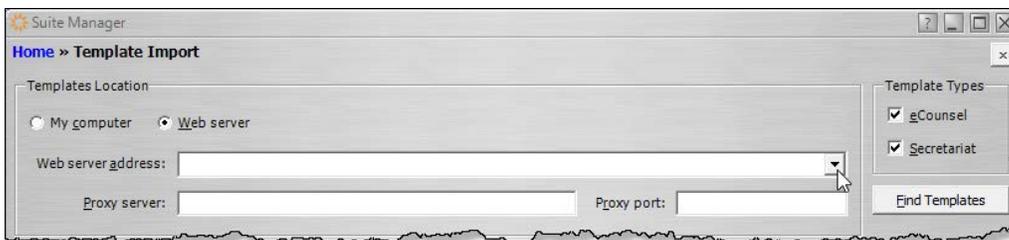
! The Web service must be restarted after configuring i-net Clear Reports.

Importing Upgraded i-net Clear Report Templates

A number of reports have been upgraded to work with the newer version of i-net Clear Reports and must be reimported. Existing custom report template must be upgraded before they are imported. For more information, see the section “Upgrading Custom i-net Clear Reports Templates” on page 99.

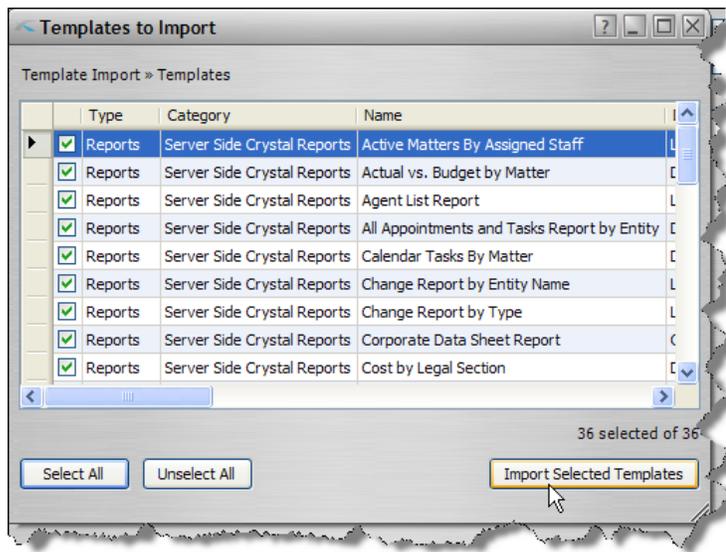
To Import Upgraded i-net Clear Reports Templates:

1. Open Suite Manager.
2. On the **Suite Manager** control panel, click on the  **Template Import** component in the **Tools & Utilities** area.
3. On the **Template Import** window, select the *Web server* template location.
4. Select the appropriate i-net Clear Reports templates to import. For example, for <https://templates.mitracloud.com/templates/all/v8.x/i-netClearReports/Oracle/templates> or <https://templates.mitracloud.com/templates/all/v8.x/i-netClearReports/SQLServer/templates>.



5. Click the checkbox next to the Suite application for which you are importing templates. If you are importing templates for both applications, select both checkboxes.
6. Click **Find Templates**.

7. On the **Templates to Import** dialog box, click the **Select All** button to import all updated reports.



8. Click the **Import Selected Templates** button. A progress meter will display. You can abort the installation at any time by clicking **Cancel**. If any errors are encountered, they will display at the bottom of the dialog box.
9. Click the **Close**  button to exit the **Templates to Import** dialog box.

Upgrading Custom i-net Clear Reports Templates

Custom reports must be converted to i-net Crystal Reports 16 before they can be used in any of the Suite applications. The reports are upgraded using the following process:

1. Converting Report Templates with the ReportReader Tool
2. Editing the XML File Attributes
3. Changing the Data Source
4. Recreating the Data Source Structure
5. Reconfiguring the Report Template
6. Deleting the Old Data Source

Converting Report Templates with the ReportReader Tool

This conversion is done using the ReportReader tool included in the **templates\i-net Crystal Clear Reports\Report Reader Tool** directory on the Suite installation media.

The ReportReader tool has known limitations. Before converting the report templates, address these limitations for every report template:

- **More than 120 sections in an area:** If a single area has more than 120 sections, the design of the additional sections cannot be accessed and are not read.
- **Display String Formula:** If an element has a display string formula set for it, it cannot be accessed and will not be included in the i-net Clear Reports report.
- **Various Chart Properties:** Some chart properties and settings cannot be accessed by the report reader.

- **Line Spacing and Text Interpretation Properties for Memo fields:** The properties "line spacing" and "text interpretation" are not preserved for persistent memo fields.
- **Dynamic and Cascading Prompt Fields:** These prompt fields are modified to simple, static prompt fields.
- **Sub Report Label Font:** The font properties of a sub report label cannot be extracted and are set to a default font.
- **Cross-tab Date Grouping By Specific Periods:** Cross-tabs based on date groups lose the "group by ..." information.
- **Various Crosstab Properties:** Some crosstab properties and settings cannot be accessed by the report reader.
- **User Defined Formulas:** If a report was created with a version prior to Crystal Reports XI R2 and the report contains a user defined formula, then the report needs a Java method for the user defined formula.
- **Parameters: Setting a Custom Initial Default Value:** Parameters' default values are correctly converted, however the first default value in the list is always taken as the parameter's initial default value.
- **Document Property: Suppress if no rows:** This document property cannot be extracted and is set to a default value of false.
- **Subreport Property: Suppress Blank Subreport:** This subreport property cannot be extracted and is set to a default value of false.
- **Query files not supported:** Crystal Reports query files are no longer supported since i-net Clear Reports version 2013. The API for query files has been deprecated. Use a command in the report instead of a query file.

For more information about the limits of Report Reader when migrating Crystal Reports to i-net Clear Reports, refer to <https://www.inetsoftware.de/media/products/clear-reports/documentation/latest/crystal-reports-migration.pdf>.

To convert the reports using the Report Reader Tool:

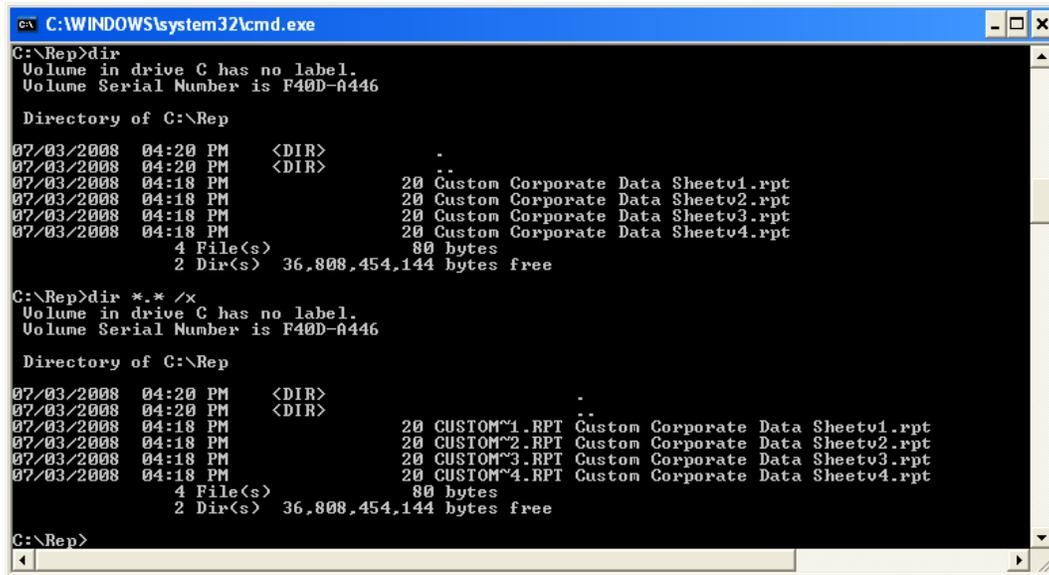
1. On the machine where Crystal Reports is installed, create a new folder (the screenshots below use the folder name **Rep**) in which to store the Report Reader program and all reports to be converted.
 - Locate **ReportReader.exe** on the installation media and copy the file into the new folder.
 - Locate and copy all Crystal Reports **.rpt** files to be converted into the same folder.
2. Open a command prompt.
3. On the **Command Prompt** window, type the following and press the <ENTER> key to change directory to the new folder:

```
cd \FolderName>
```

where *<FolderName>* is the name of the folder created in Step 1.

4. On the **Command Prompt** window, type the following and press the <ENTER> key to list the contents of the directory:

```
dir *.* /x
```



```
C:\WINDOWS\system32\cmd.exe
C:\Rep>dir
Volume in drive C has no label.
Volume Serial Number is F40D-A446

Directory of C:\Rep
07/03/2008  04:20 PM    <DIR>          .
07/03/2008  04:20 PM    <DIR>          ..
07/03/2008  04:18 PM                20 Custom Corporate Data Sheetv1.rpt
07/03/2008  04:18 PM                20 Custom Corporate Data Sheetv2.rpt
07/03/2008  04:18 PM                20 Custom Corporate Data Sheetv3.rpt
07/03/2008  04:18 PM                20 Custom Corporate Data Sheetv4.rpt
               4 File(s)                80 bytes
               2 Dir(s)  36,808,454,144 bytes free

C:\Rep>dir *.* /x
Volume in drive C has no label.
Volume Serial Number is F40D-A446

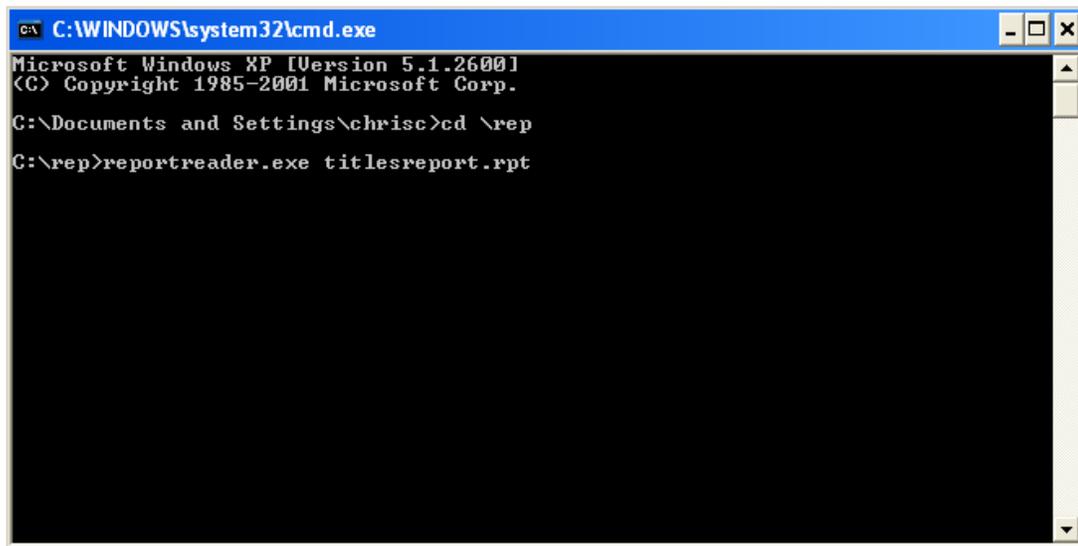
Directory of C:\Rep
07/03/2008  04:20 PM    <DIR>          .
07/03/2008  04:20 PM    <DIR>          ..
07/03/2008  04:18 PM                20 CUSTOM~1.RPT Custom Corporate Data Sheetv1.rpt
07/03/2008  04:18 PM                20 CUSTOM~2.RPT Custom Corporate Data Sheetv2.rpt
07/03/2008  04:18 PM                20 CUSTOM~3.RPT Custom Corporate Data Sheetv3.rpt
07/03/2008  04:18 PM                20 CUSTOM~4.RPT Custom Corporate Data Sheetv4.rpt
               4 File(s)                80 bytes
               2 Dir(s)  36,808,454,144 bytes free

C:\Rep>
```

5. On the **Command Prompt** window, type the following and press the <ENTER> key to run Report Reader:

```
Reportreader.exe <ReportName>.rpt
```

where <ReportName> is the name of the report file.



```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings\chrisc>cd \rep
C:\rep>reportreader.exe titlesreport.rpt
```

Report Reader will create a version of the report that has a **.xml.rpt** extension. For reports to be loaded in bulk, all ***.xml.rpt** files must be renamed ***.rpt**, and an accompanying header file (**.xml**) must be created for each report template. The **.rpt** version of the report can be imported into Suite using the Template Import component of Suite Manager.

Editing the XML File Attributes

Report Reader generates an XML file with a **.xml.rpt** extension in the current directory. In this file, you need to edit the databaseIdentifier attributes on the TableSource tag. Complete this process for each report that is converted.

To edit the attributes:

1. Open the **.xml.rpt** file.
2. On the TableSource tag, locate any of the attributes with the following form:

```
databaseIdentifier="<DBName>.<schema>.
```

where *<DBName>* is the name of the database and *<schema>* is the schema.

3. Replace the value of the attributes with the value of the alias attribute. For example, if the Tablesource tag originally reads:

```
<Tablesource alias="sp_DataPullMatterAdjudication"  
databaseIdentifier="DataBase12.dbo.sp_DataPullMatterAdjudication:1" >
```

change it to:

```
<Tablesource alias="sp_DataPullMatterAdjudication"  
databaseIdentifier="sp_DataPullMatterAdjudication" >
```

Tip: Perform a search for:

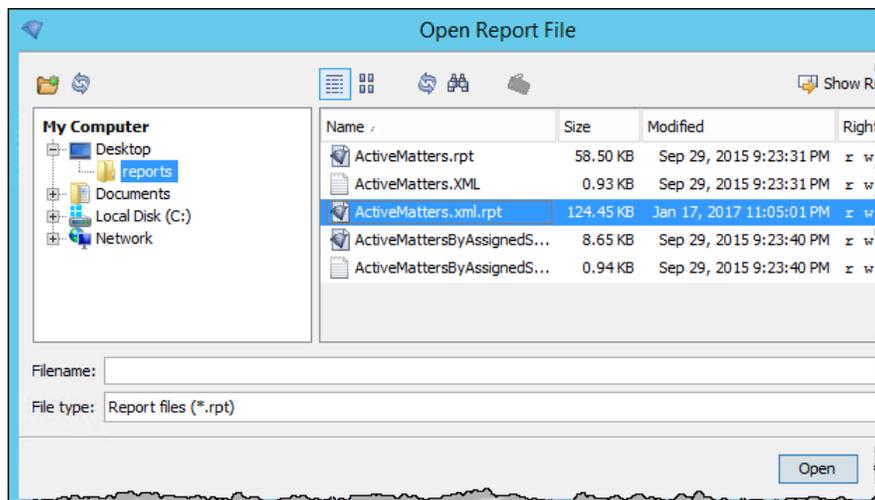
```
databaseIdentifier="<DBName>.<schema>.
```

where *<DBName>* is the name of the database and *<schema>* is the schema. Make sure to include the period at the end of the phrase. Replace the text with:

```
databaseIdentifier="
```

Then search for the next instance. Do not perform a **Replace All**; verify each instance before replacing the instance.

4. Save the modified ***.xml.rpt** report.
5. Open i-net Clear Reports Designer and open the report from within the application.



If you receive a warning that you cannot render this report or use its datasources because the datasource is unknown and has to be replaced, click **OK**.

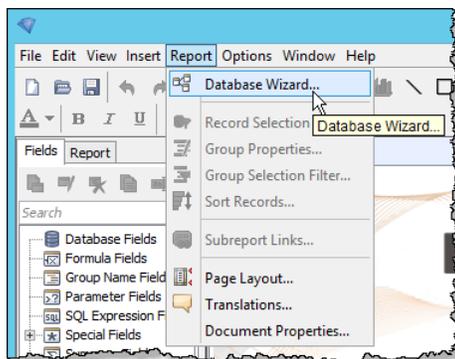
6. Click **File** and select *Save As...*. Save the new report and change **.xml.rpt** to a **.rpt** extension.
7. Close the report in i-net Designer.

Changing the Data Source

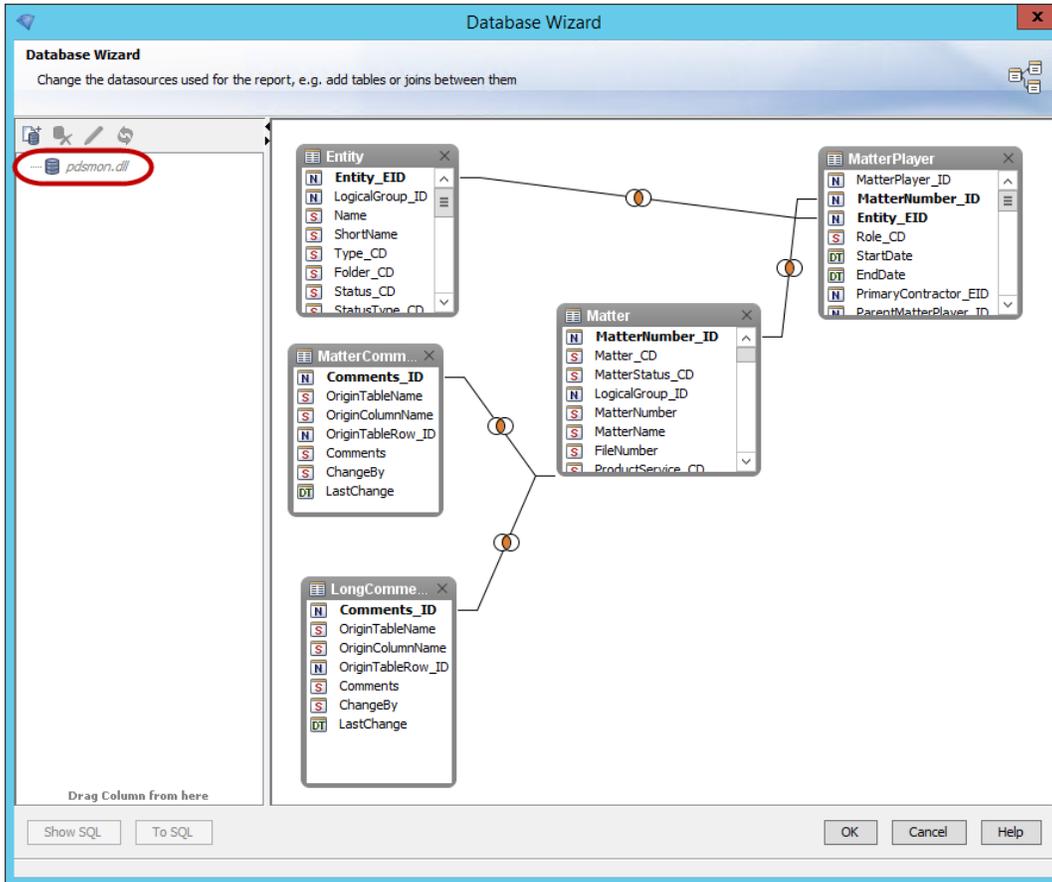
After modifying and changing the file extension of the report, you need to change the data source.

To change the Data Source:

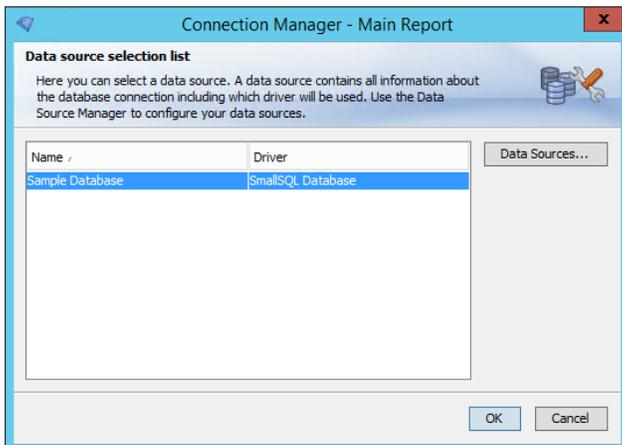
1. Open the newly-saved report.
2. Click the **Report** menu and select *Database Wizard*.



- In the navigation pane of the wizard, you can see that the current data source in the template is a **.dll** file.

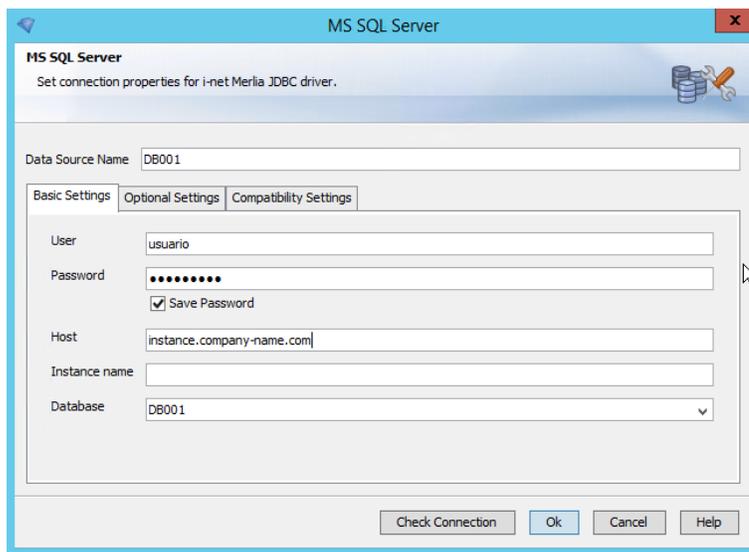


- Click the  **New Connection** icon.
- On the **Connection Manager – Main Report** window, select the correct data source, click **OK** the **Connection Manager – Main Report** window, and click **OK** on the **Database Wizard** window. If the data source does not appear in the list, continue following these instructions to create the new data source. Otherwise, skip to the section on “Recreating the Data Source Structure” on page 105.



- Click the **Data Sources ...** button.

7. Click the **User** tab and click the **Add** button.
8. Select the **My SQL Server** driver.
9. Type the Data Source Name.
10. On the **Basic Settings** tab, type the following information in the fields:
 - Database user and password
 - Host
 - Instance name (if necessary)
 - Database



11. On the **Optional Settings** tab, type the port number and adjust the Secure Level if needed.
12. Click the **Check Connection** button and correct any errors if necessary. When the **Connection Test successful** message appears, click **OK**.
13. Click **OK** on the **MS SQL Server** window and click **Close** on the **Java Data Source Manager** window.
14. On the **Connection Manager – Main Report** window, select the newly-created data source and click **OK**. The new data source appears in the navigation pane of the Database Wizard.
15. Click **OK** to close the **Database Wizard**.

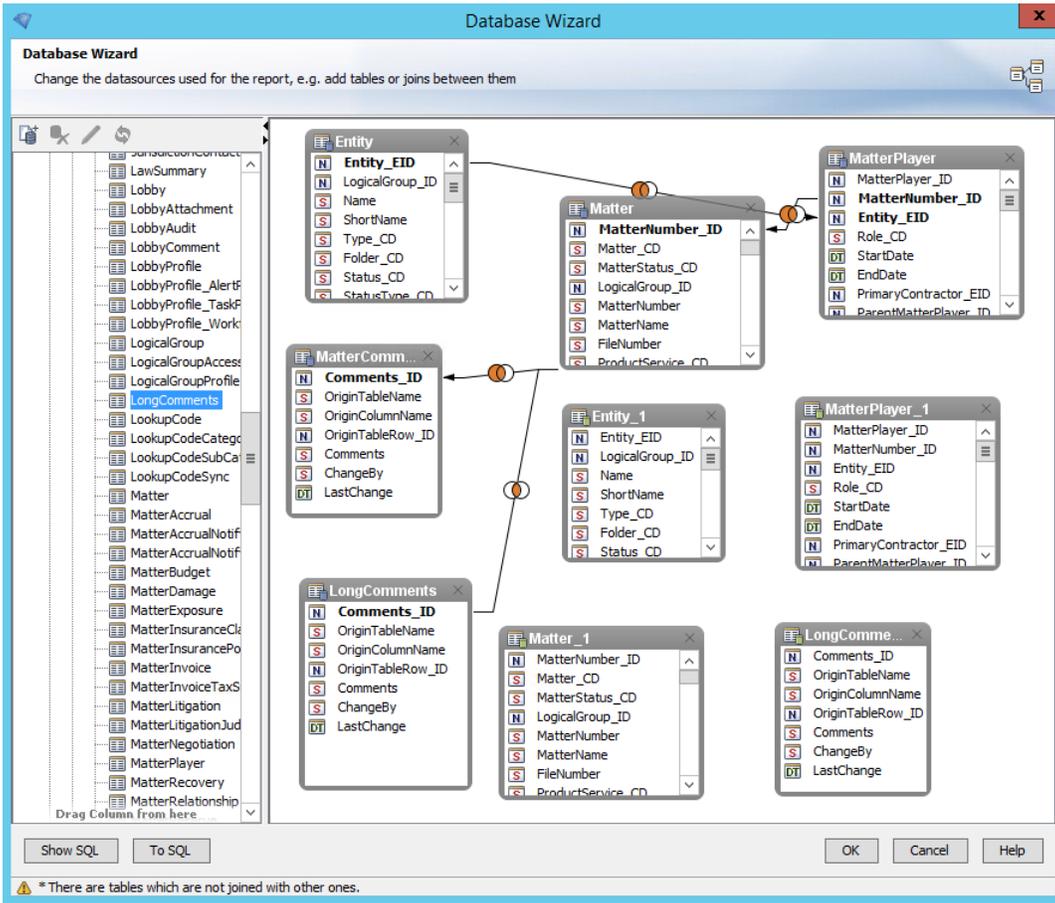
If a warning message appears, close the message and save and close the report. Re-open the report and confirm the data source.

Recreating the Data Source Structure

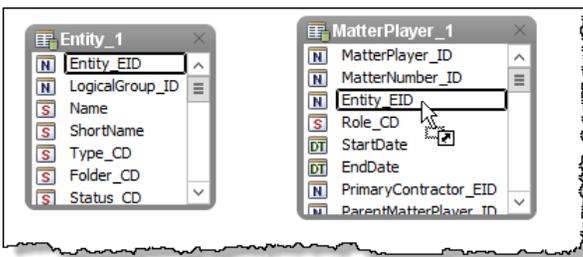
After the data source has been changed, the previous data source structure needs to be created in the new data source structure. This process must be done with caution; the new structure must be configured exactly like the old structure.

1. In the Database Wizard that was opened in the previous steps, drag-and-drop the appropriate tables from the new data source onto the right-hand pane. When you drop a table onto the pane, the name of the table

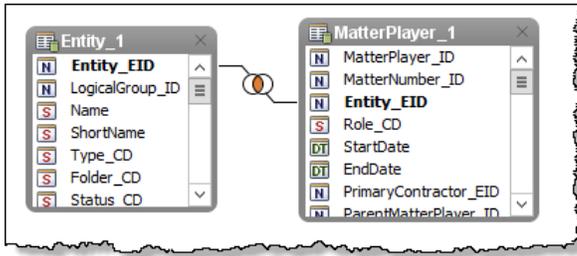
will have a number appended to the end of the table name (for example, the newly dragged **Entity** table becomes **Entity_1**). The names will be updated in a later step. At this point, the tables are not joined.



2. Create the relationships between the tables from the new data source by linking the fields. To link the fields, click the field in one table and drag it to the same field in the corresponding table.



The fields are now linked.



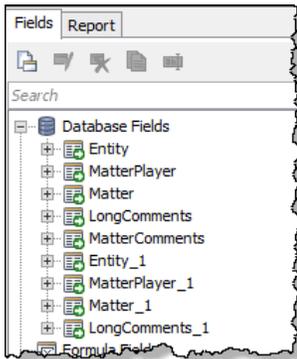
Make sure to keep the same relationships between tables in the new data source exactly as they are configured in the old data source.

3. After you have linked all the fields, click **OK** to close the Database Wizard. If a message displays an error stating “There are tables which are not joined with other ones.”, click **Yes** to continue.

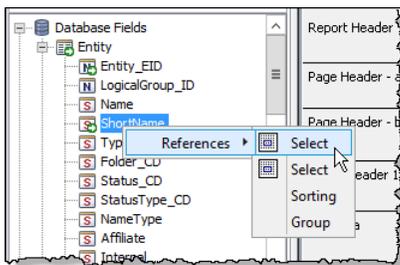
Reconfiguring the Report Template

After the data source structure has been restructured, reconfigure the report template by replacing the old fields from the old data source with the new fields from the new data source.

1. On the **Fields** tab in the navigation pane of i-net Designer, expand the **Database Fields** node. At this point, this node contains both the tables from the old data source and the tables from the new data source. In this example, the tables of the new data source have **_1** appended to the name of the table.

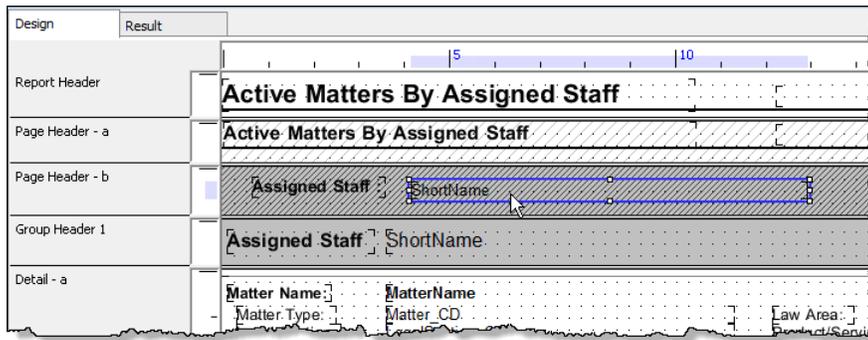


2. Expand the node for a table in the original data source. For example, if the table for the original data source is **Entity** and the table for the new data source is **Entity_1**, expand the node for **Entity**.
3. Right-click a field that features an icon overlay of a green arrow and click **References**. In the context menu that appears, each instance of *Select* represents an instance that the field appears in the template.

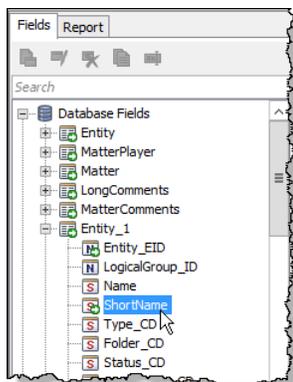


Note: Not every field has *Select* in the context menu, depending on the template configuration.

- Click the top instance of *Select*. The instance of that field is selected in the template.

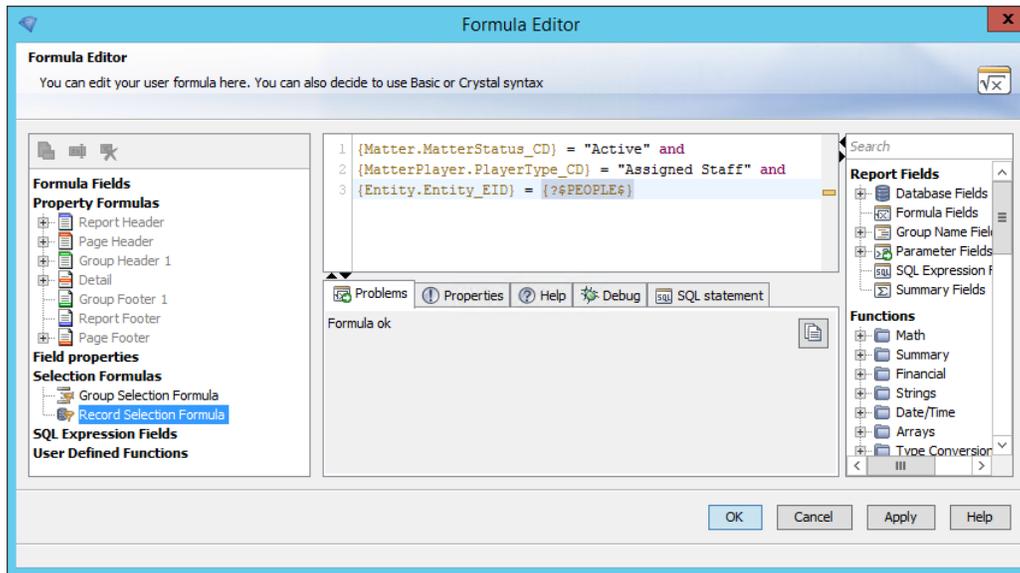


- Delete the instance and replace it with the corresponding field from the new table (in this example, **ShortName** from table **Entity_1**) by dragging the field from the **Field** tab onto the report template.



- Repeat these steps to delete and replace each instance of each field that features an icon overlay of a green arrow.
- Click **Save**.

- On the menu, click **Report** and select *Record Selection Filter*.



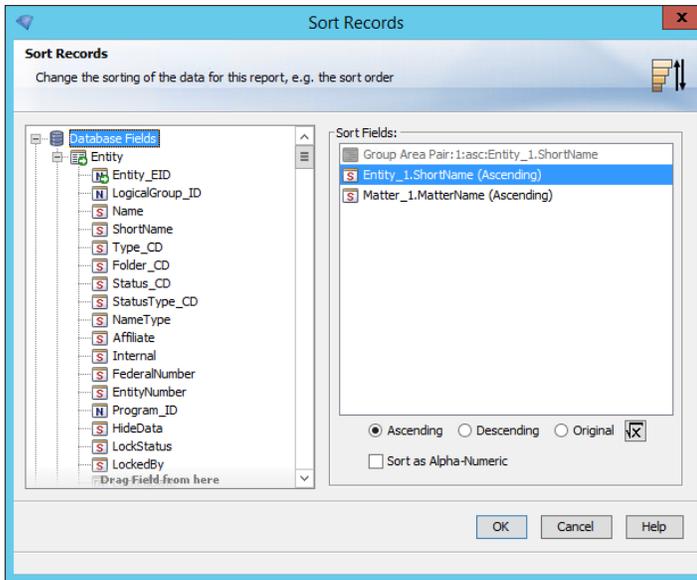
Change the field names to reflect the name of the table of the new data source. In this example,

```
{Matter.MatterStatus_CD} = "Active" and  
{MatterPlayer.PlayerType_CD} = "Assigned Staff" and  
{Entity.Entity_EID} = {?PEOPLE$}
```

would become

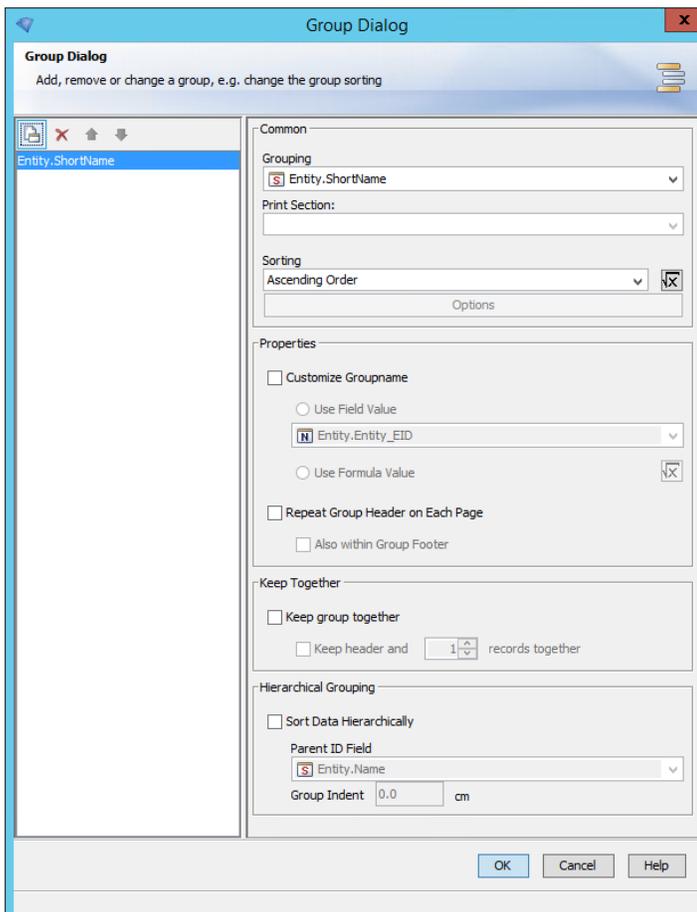
```
{Matter_1.MatterStatus_CD} = "Active" and  
{MatterPlayer_1.PlayerType_CD} = "Assigned Staff" and  
{Entity_1.Entity_EID} = {?$PEOPLE$}
```

- In the navigation pane, select *Group Selection Filter* and change the field names to reflect the name of the table of the new data source.
- Click **OK** to close the Formula Editor.
- On the menu, click **Report** and select *Sort Records*.
- For each sort field:
 - Add the new field by dragging it from the left pane into the Sort Fields pane.
 - Delete the old field from the Sort Fields pane by right-clicking the field and selecting **Delete**.
 - Repeat until the Sort Field pane contains only fields from the new data source.

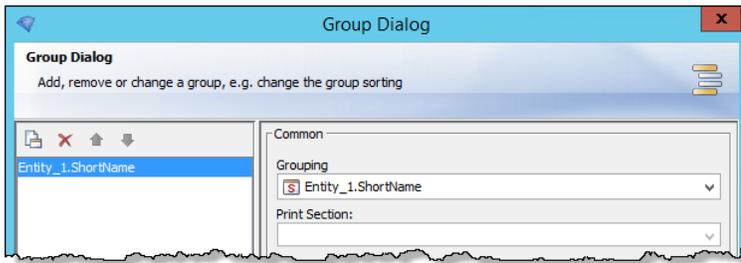


Note: To prevent errors, Sort Records must be changed before Group Properties.

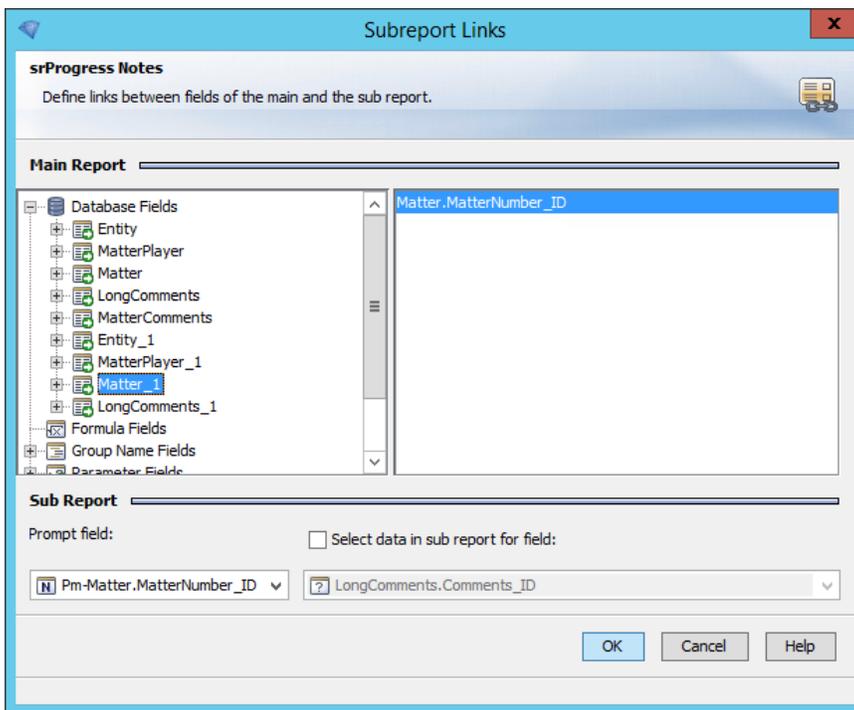
13. Click **OK** to close the **Sort Records** dialog box.
14. On the menu, click **Report** and select *Group Properties*.



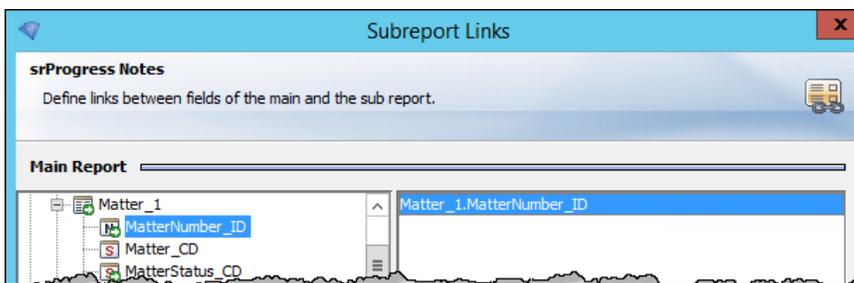
15. For each group, select the group in the navigation pane and then use the dropdown to select the new grouping. In this example, **Entity.ShortName** would be replaced with **Entity_1.ShortName**.



16. Click **OK** to close the **Group Dialog** dialog box.
17. On the menu, click **Report** and select *Subreport Links*.



18. For each field, add the new field by dragging it from the left pane into the right pane, and delete the old field from the right pane by double-clicking the field. Repeat until all the links have been replaced by fields from the new data source.

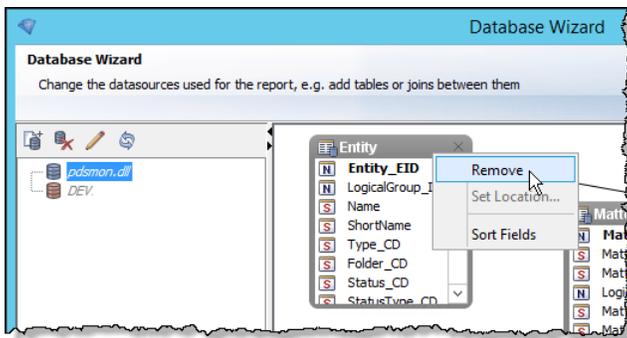


19. Click **OK** to close the **Subreport Link** dialog box.
20. In the navigation pane of the i-net Designer, click through the nodes for Formula Fields, Group Name Fields, Parameter Fields, SQL Expression Fields, Special Fields, and Summary Fields. Replace any fields from the old data source with the corresponding field from the new data source.
21. Click **Save**.

Deleting the Old Data Source

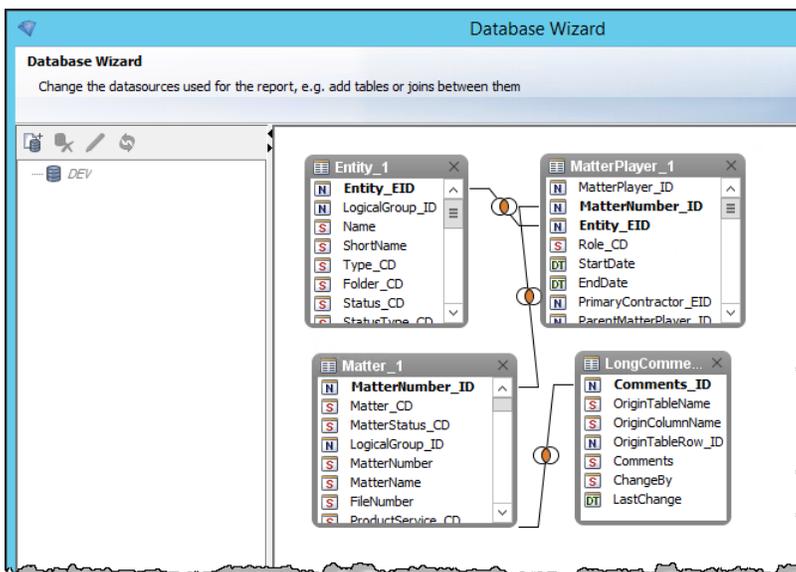
After all the references to the old data source have been removed and updated in the report template, the old data source can be removed. If any references to the old data source still exist in the template, i-net Designer will not allow the old data source to be deleted.

1. Open the Database Wizard by clicking **Reports** and selecting *Database Wizard*.
2. Right-click a table from the old data source and select *Remove* from the context menu.



If all the references to the old data source have been removed from the report template, the table is removed from the database wizard.

3. Repeat the previous step for each table from the old data source. The only tables that remain are the ones that you created with the new data source.
4. In the navigation pane, right click the old data source (the **.dll** file) and click *Remove Connection*.



5. Rename each table to its original name. For example, double-click the **Entity_1** table and change the alias to **Entity**.
6. Click **OK** to close the Database Wizard.
7. Click **Save** to save the report.

Upgrading SAP BusinessObjects Business Intelligence Platform

 Premium feature – A registration key code is required to activate.

Suite Version 8.11 integrates with BusinessObjects Business Intelligence platform 4.1 SP4. See the *Suite SAP BusinessObjects Business Intelligence Platform 4.1 Integration Guide* for more information.

Troubleshooting Installation

Browser Issues

Problem: Graphical elements of Suite do not function properly.

Solution: Make sure that you have images turned on in your browser; otherwise, the graphics used by Suite may not display properly or may cause errors.

Problem: Fields that are not required appear with a yellow background, the same as required fields.

Solution: Make sure that you have turned off AutoComplete in the browser.

Problem: “Pop-up blocked” when using an application in the Suite.

Solution: If pop-up blocker is being used, always allow pop-ups from the site you are using to view Suite.

Apache Tomcat

Problem: Spell check and other components aren’t working properly.

Solution: Make sure the Tomcat Web server is using the appropriate JDK.

To Modify the JVM for Apache Tomcat:

1. Right-click on the Tomcat icon in the system tray and select *Configure* from the popup menu.
2. On the **Apache Tomcat Properties** dialog box, click on the **Java** tab.
3. Change the Java Virtual Machine to the path to the newly installed JDK (as shown below).
4. Click **OK**.

To Modify the JAVA_HOME Environmental Variable:

1. Right-click on My Computer on the Microsoft Window Desktop, and select *Properties* from the popup menu. Or, click on the Windows **Start** menu, select *Settings*, select *Control Panel*, then open the *System* applet.
2. On the **System Properties** dialog box, click on the **Advanced** tab.
3. Click the **Environment Variables** button.
4. On the **Environment Variables** dialog box, click on the JAVA_Home system variable, then click **Edit**.
5. On the **Edit System Variable** dialog box, modify the value to indicate the new file being used.
6. Click **OK**.

Problem: The Tomcat logs show a PermGen space error.

Solution: On the **Apache Tomcat Properties** dialog box, add “-XX:MaxPermSize=128m” to the end of the Java Options list box on the **Java** tab, then restart the Tomcat service.

Problem: The Tomcat logs show an error while registering Oracle JDBC Diagnosability MBean.

Solution: The Oracle Database 11g Release 1 JDBC Driver (**ojdbc5.jar**) can be replaced within the Suite deployment to resolve this error, which does not affect performance of the Suite applications. Copy a new jar file from <http://www.oracle.com/technetwork/database/enterprise-edition/jdbc-111060-084321.html> (if you do not have an Oracle account, create a new one or contact Mitratech Support for the files) and replace the current file at `<Install>\<Context>\WEB-INF\lib`, where `<Install>` is the installation directory for Suite on the Web server and `<Context>` is the name of the `.war` file). Restart the Apache Tomcat service.

Problem: Performance degradation with errors indicating problems with the XML parsers.

Solution: Follow the steps below:

1. Open the `darwinmaster.properties` file (located at `<Install>\<Context>\web-inf\classes\com\bsi\attributes`, where `<Install>` is the installation directory for Suite on the Web server and `<Context>` is the name of the `.war` file).
2. Find the following properties and copy the lines:

```
#XML/XSLT plugins for Tomcat
#javax.xml.transform.TransformerFactory=com.icl.saxon.TransformerFactoryImpl
#javax.xml.parsers.SAXParserFactory=com.icl.saxon.aelfred.SAXParserFactoryImpl
#javax.xml.parsers.DocumentBuilderFactory=com.sun.org.apache.xerces.internal.jaxp.DocumentBuilderFactoryImpl
```

3. Paste the lines in the `darwin.properties` file (located in the same directory).
4. Remove the initial comment symbol “#” from each line except the first to activate the property.
5. Save the file.
6. Restart the Web server.

Problem: When viewing the standard output log file for Apache Tomcat, any “SysInfo.class” entry that specifies a former version of Suite indicates that multiple versions are deployed (only one version should be deployed).

Solution: Stop the Apache Tomcat service, use the instructions in “Backup the Current Installation of Suite” on page 88 to make a copy of the older deployment, and then follow the instructions for “Undeploy the Current Suite Application” on page 89 to decommission the older version of Suite.

Oracle WebLogic Application Server

Problem: When starting up the Suite 8.x application, the server returns an error that WebLogic `java.io.FileNotFoundException: (Too many open files)`.

Solution: Add the following statement to the startup script: `ulimit -n 4096`

Problem: Deleting a Suite deployment from the WebLogic Java application server fails with an unhandled exception.

Solution: Although the delete returns an error, the deployment will be deleted successfully, so this error can be ignored.

Problem: Performance degradation with errors indicating problems with the XML parsers.

Solution: Follow the steps below:

1. Open the **darwinmaster.properties** file (located at `<Install>\<Context>\web-inf\classes\com\bsi\attributes`, where `<Install>` is the installation directory for Suite on the Web server and `<Context>` is the name of the `.war` or `.ear` file).
2. Find the following properties and copy the lines:

```
#javax.xml.transform.TransformerFactory=net.sf.saxon.TransformerFactoryImpl
```
3. Paste the lines in the **darwin.properties** file (located in the same directory).
4. Remove the initial comment symbol “#” to activate the property.
5. Save the file.
6. Restart the Web server.

Problem: Issues occur when using load balancing with NetScaler and HTTPS protocol with the WebLogic Application server.

Solution: In NetScaler, add a Header writer to add the `wl-proxy-ssl:true` property. In the WebLogic Administration Console, click the domain link in the navigation pane, click the **Web Application** tab, and select *WebLogic Plugin Enabled*.

IBM WebSphere Application Server

Problem: Performance degradation with errors indicating problems with the XML parsers.

Solution: Follow the steps below:

1. Open the **darwinmaster.properties** file (located at `<Install>\<Context>\web-inf\classes\com\bsi\attributes`, where `<Install>` is the installation directory for Suite on the Web server and `<Context>` is the name of the `.war` or `.ear` file).
2. Find the following properties and copy the lines:

```
#XML/XSLT plugins for Websphere  
#javax.xml.transform.TransformerFactory=com.icl.saxon.TransformerFactoryImpl  
#javax.xml.parsers.SAXParserFactory=org.apache.xerces.jaxp.SAXParserFactoryImpl  
#javax.xml.parsers.DocumentBuilderFactory=org.apache.xerces.jaxp.DocumentBuilderFactoryImpl
```
3. Paste the line in the **darwin.properties** file (located in the same directory).
4. Remove the initial comment symbol “#” from each line except the first to activate the property.
5. Save the file.
6. Restart the Web server.

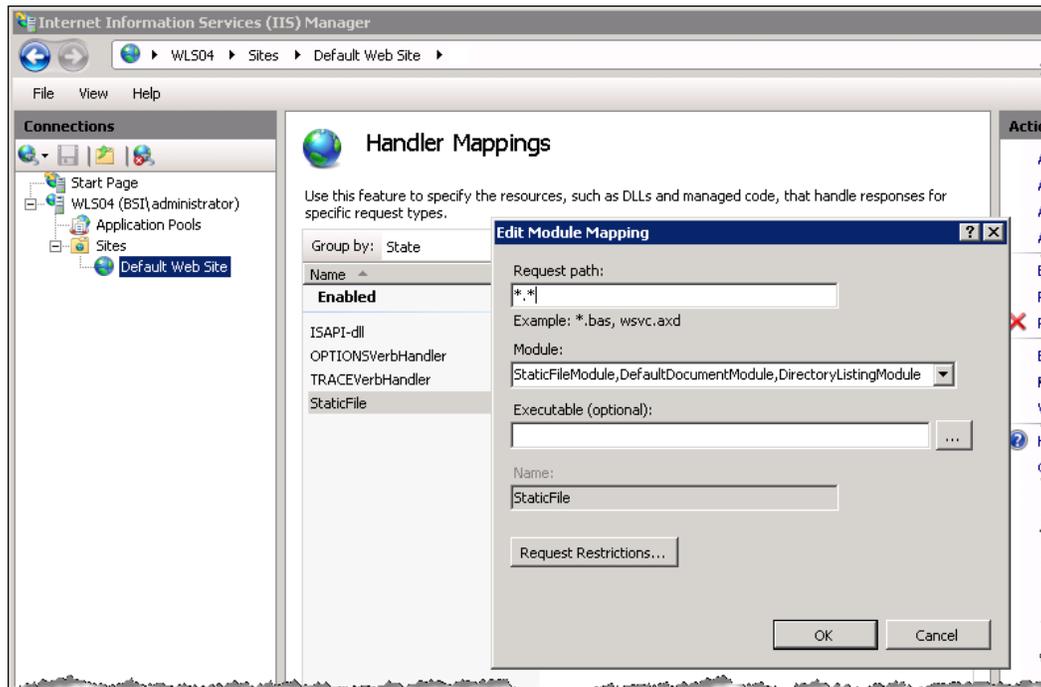
Internet Information Services (IIS)

Problem: When browsing to the Suite Web or NetViewer applications, IIS returns a 404.4 error.

Solution: Change the Static File handler for the Default Web Site in IIS.

1. On the **Default Web Site Home** screen, double-click on the **Handler Mappings** component.
2. On the **Handler Mappings** screen, double-click on the *StaticFile* item.

3. Change the request path from * to *.* , and click the **OK** button.



Database Connection

Problem: When creating a database connection, a NULL pointer exception error is returned after clicking **Save** on the **Add/Edit Database Item** page. (See “Creating a Database Connection” on page 41 for more information on database access.)

Solution: Typically a NULL pointer exception error is returned if the database user name and password fail authentication. However, several other scenarios can cause issues:

- When entering any information on the **Add/Edit Database Item** page, do not copy-and-paste the information from another source (such as an e-mail) as this may introduce hidden characters into the property. Always type in the value.
- Verify the database user name and password are correct with your Database Administrator (DBA).
- Verify the database schema is correct with your DBA.
- If the database previously was accessed from a deployment that used the unlimited encryption files and the current deployment uses standard encryption, the system password will not be able to be unencrypted properly. Either deploy the unlimited encryption files or use the instructions below to set the ForceSmallDigest property.

Fonts on Linux/Unix for Reporting

Problem: For some organizations, customized or third-party font typefaces are required for reports generated in Suite.

Solution: For information on installing the fonts, see the Appendix of the *Suite Reports Guide*

Linux/Unix

Problem: A known issue with the `java.io.tmpdir` directory when running Java on LINUX/UNIX systems causes problems when using any of the Java application servers for Suite.

Specifying the Path to the Java Temporary Directory for Apache Tomcat

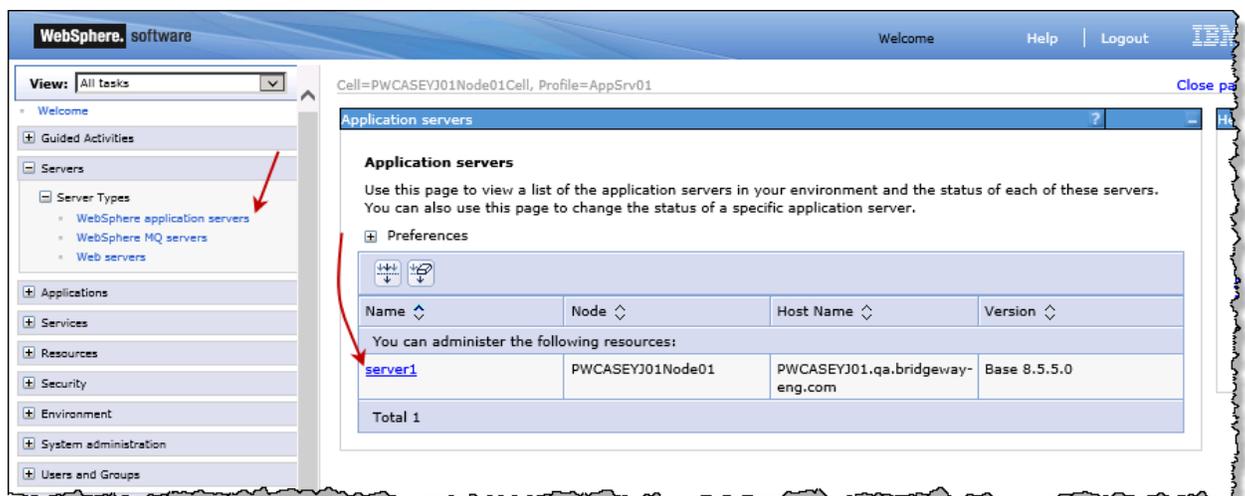
1. In the bin directory for the Apache Tomcat installation, edit the `catalina.sh` file.
2. After the commented section, add the following environment variable:
`CATALINA_TMPDIR=<Path>`
3. Save the file.
4. Stop and start the server instance for the change to take effect.

Specifying the Path to the Java Temporary Directory for WebLogic

1. Add the following argument to the Java options section of the WebLogic startup script:
`-Djava.io.tmpdir=<Path>`
2. Stop and start the server instance for the change to take effect.

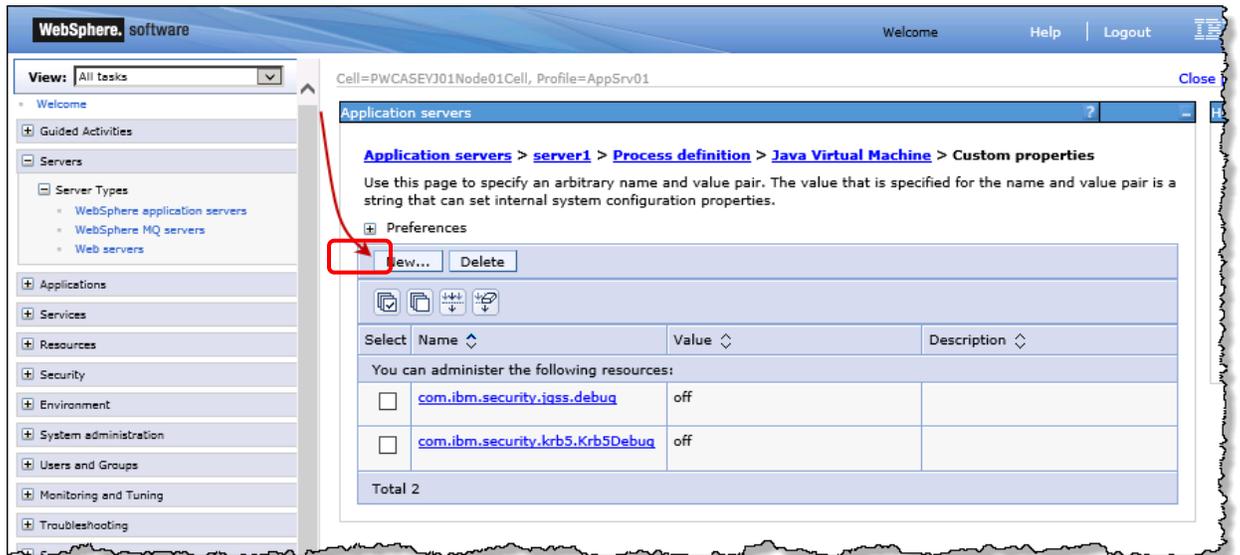
Specifying the Path to the Java Temporary Directory for WebSphere

3. Log into the IBM WebSphere Application Server Integrated Solutions Console (ISC).
4. On the treeview in the left pane, expand the Servers node, then expand the Server Types node. Click on the **WebSphere application servers** link.
5. In the right pane, locate the target server in the Application servers list, and click on the server name to select it.

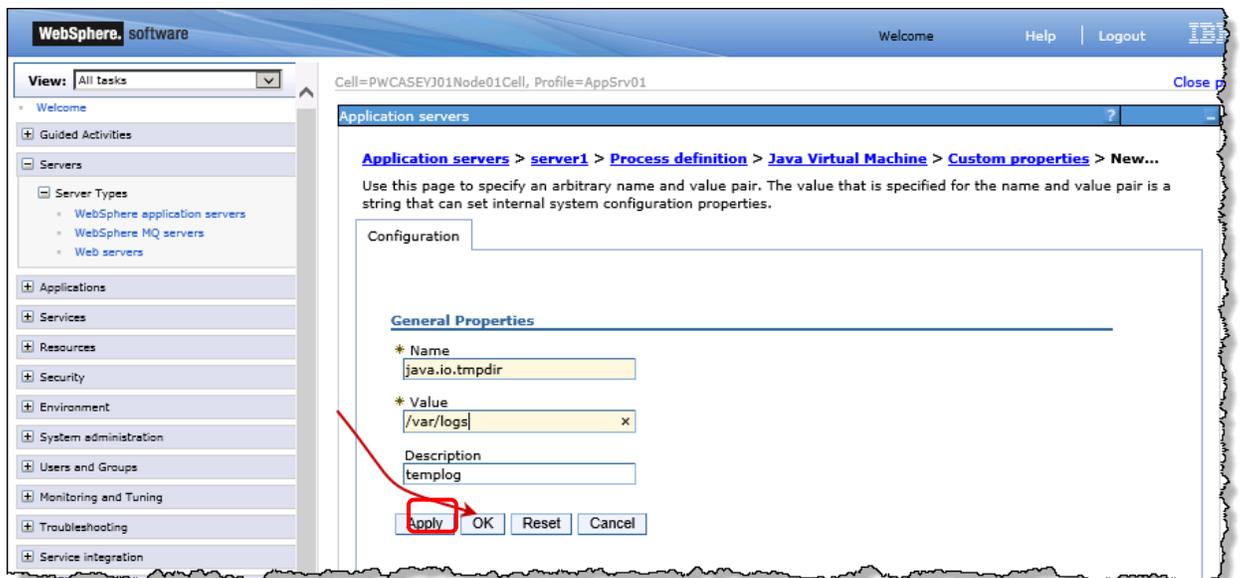


6. In the *Server Infrastructure* area on the right side of the page, expand the Java and Process Management node. Click the **Process definition** link.
7. In the *Additional Properties* area on the right side of the page, click the **Java Virtual Machine** link.

- In the *Additional Properties* area on the right side of the page, click the **Custom properties** link.
- Click the **New** button.



- In the *Custom property* area, type “java.io.tmpdir” in the Name text box.
- Type the path to the temporary directory to be used in the Value text box.
- Optionally, type a description for the property in the Description text box.



- Click **OK**.

14. Click the **Save** link to commit the change directly to the master configuration.

The screenshot shows the Integrated Solutions Console interface. The top navigation bar includes 'Integrated Solutions Console', 'Welcome jeff', 'Help | Logout', and the IBM logo. The breadcrumb path is 'Cell=WAS02Node01Cell, Profile=AppSrv01'. The left sidebar contains a tree view with categories like 'View: All tasks', 'Welcome', 'Guided Activities', 'Servers', 'Applications', 'Services', 'Resources', 'Security', 'Environment', 'System administration', 'Users and Groups', 'Monitoring and Tuning', 'Troubleshooting', 'Service Integration', and 'UDDI'. The main content area is titled 'Application servers' and displays a warning message: 'Changes have been made to your local configuration. You can: • Save directly to the master configuration. • Review changes before saving or discarding. The server may need to be restarted for these changes to take effect.' Below the message is a breadcrumb path: 'Application servers > server1 > Process definition > Java Virtual Machine > Custom properties'. A text block explains: 'Use this page to specify an arbitrary name and value pair. The value that is specified for the name and value pair is a string that can set internal system configuration properties.' Under the 'Preferences' section, there are 'New' and 'Delete' buttons, followed by a table with columns 'Select', 'Name', 'Value', and 'Description'. The table contains one row with a checkbox, the name 'com.ibm.security.jgss.debug', and the value 'off'.

Select	Name	Value	Description
<input type="checkbox"/>	com.ibm.security.jgss.debug	off	

15. Stop and start the server instance for the change to take effect.

Appendix A: Setting Properties

Most properties are set using the System Settings component of Suite Manager. However, a system administrator also can set properties using the `darwin.properties` file within the Web server application. The following files are used:

- `darwin.properties` – a file used to set the actual property values. This file must be backed up and copied into any Suite upgrade to persist the settings from upgrade to upgrade.
- `darwinmaster.properties` – a file listing all available properties that can be set. This file is overwritten each time an upgrade is installed so that any new properties from Mitratesh that have been created for the upgrade can be accessed in the upgrade installation.

! Do not edit the `darwinmaster.properties` file directly as any property values will be overwritten during an upgrade of Suite. Always copy any properties to be configured to the `darwin.properties` file.

To use the properties file:

1. Open Notepad or another text editing program.
2. Click **File** and select *Open*.
3. On the **Open** dialog box, browse to the following location:

```
<Install>\<Context>\web-inf\classes\com\bsi\attributes
```

where `<Install>` is the installation directory for Suite on the Web server and `<Context>` is the name of the `.war` or `.ear` file). For example:

```
C:\tomcat8\webapps\suite8\web-inf\classes\com\bsi\attributes
```

4. In the Files of type field, select *All Files*.
5. Select the `darwinmaster.properties` file.
6. Click **Open**.
7. Copy a section of properties (or all applicable properties).
8. Paste the section in the `darwin.properties` file (located in the same directory as `darwinmaster.properties`).
9. Enter values for any properties that you copied in Step 7.
10. Click the **File** menu and select *Save*.
11. Restart the Web service.

To access available properties:

The `darwinmaster.properties` file contains the following properties:

Property	Description	Values
LoginPageContentAddress	Displays the contents of the Web page in the right pane on the Login page for Suite.	Any URL. The default is http://www.bridge-way.com .
XmlOutputDirectory	Sets the directory for XML files that may be output by Suite.	Any directory path within the Webserver application. The default is the <code>xsl/xml</code> directory.
XslDirectory	Sets the directory for XSL files that may be output by Suite.	Any directory path within the Webserver application. The default is the <code>xsl</code> directory.
ReportsDirectory	Sets the directory for report files that are used by Suite.	Any directory path within the Webserver application. The default is the <code>reports</code> directory.
SaveXslInMemory	Indicates if XSL files are loaded in memory or saved to file.	A value of “true” or “false”. The default is “false”.
ClientSideXsl	Indicates if XSL process is used for Microsoft Internet Explorer 5.x and higher.	A value of “true” or “false”. The default is “false”.
ClientSideXsl_XslRelativePath	Sets the directory for XSL files relative to the document root path.	Any relative directory path. The default is <code>../darwin/xsl</code> .
DateFormatCount	Sets the number of date formats that can be used within Suite	An integer. The default is 14.
DateFormat <i>n</i>	Sets a mask for the format in which dates are displayed in Suite. The number of variables corresponds to the integer value of the <code>DateFormatCount</code> property.	A mask for date formats. Default values include “MM/dd/yyyy”, “MM/dd/yy”, “M/d/yy”, etc.
TimestampFormatCount	Sets the number of date/time formats that can be used within Suite.	An integer. The default is 38.
TimestampFormat <i>n</i>	Sets a mask for the format in which date/times are displayed in Suite. The number of variables corresponds to the integer value of the <code>TimestampFormatCount</code> property.	A mask for date/time formats. Default values include “MM/dd/yyyy hh:mm a”, “M/d/yy h:mm a”, “M/d/yy h:mm:ss a”, etc.
TimeFormatCount	Sets the number of time formats that can be used within Suite.	An integer. The default is 4.
TimeFormat <i>n</i>	Sets a mask for the format in which times are displayed in Suite. The number of variables corresponds to the integer value of the <code>TimeFormatCount</code> property.	A mask for time formats. Default values include “hh:mm a”, “hh:mm:ss a”, etc.
CacheLookups	Indicates if lookup values are cached in memory.	A value of “true” or “false”. The default is “true”.

Property	Description	Values
DMSServerPath	Sets the path to the DMS server if a Document Management System (DMS) is used.	The URL path to the DMS server. By default, no path is set.
HelpFilePath_eCounsel HelpFilePath_Secretariat HelpFilePath_SuperViewer_Admin HelpFilePath_SuperViewer_User HelpFilePath_SuiteMan	Sets the path to the help files for each product if the default path to the hosted help is not used.	The URL or UNC path to the help files. By default, no path is set (the help is hosted by Suite—requires an Internet connection and firewall access).
LogLogins	Indicates if login attempts are written to a log file.	A value of “true” or “false”. The default is “true”.
javax.xml.transform.TransformerFactory javax.xml.parsers.SAXParserFactory javax.xml.parsers.DocumentBuilderFactory	Sets the path to XML/XSLT plug-ins for Apache Tomcat or WebSphere.	The path to the plug-ins. By default, no path is set.
CrystalServlet	Sets the path to the Crystal Reports servlet.	The path to the servlet. By default, no path is set.
ecounselicon secretariaticon	Sets the path to the image file used on the About page for eCounsel and/or Secretariat.	The path to the image file within the Webserver application. The default value is <code>../images/ecounsel.jpg</code> and <code>../images/secretariat.jpg</code> .
NoSpacesInFolderName	Indicates if spaces are used in folder names. This property can be set for Webserver applications on UNIX.	A value of “true” or “false”. The default is “false”.
POP3ServerHost POP3ServerPort POP3User POP3Password	Sets information for a POP3 server used to host e-mail.	Information varies according to the property. By default, no values are set.
SchedulerDB	Sets the name of the database for the Scheduler component for tasks.	The name of the database. By default, no value is set.
IncludeNegotiationCommentonMatterSummary	Indicates a setting used internally by Suite.	A value of “true” or “false”. The default is “true”.
DoAudits DoDatabaseAudits	Indicates if audit information is written to a log file.	A value of “true” or “false”. The default is “false”.
EOTimeoutEnable EOTimeoutInterval EOTimeout EOTimeoutLogging	Indicates if Suite will timeout when an editable object is selected.	If EOTimeoutEnable is set to “true” (the default), an integer value is set for the interval and timeout (defaults are 10 and 30, respectively). By default, logging is set to “false”.
EnableCacheRefreshNotifier	Indicates if a notification will be sent if a cluster cache refresh is needed.	A value of “true” or “false”. The default is “true”.
ClusteredNodePrefix	Prepends the name of a log file at runtime with the text specified, so log files are not overwritten.	Text to be prepended to the log file name.
ForceUTF8InServlets	Indicates a setting used internally by Suite for compatibility with Tomcat 5.0.2 (not the recommended version of Tomcat).	A value of “true” or “false”. The default is “false”.

Property	Description	Values
BSISUITE_MIMETYPE_PDF BSISUITE_MIMETYPE_DOC BSISUITE_MIMETYPE_XSL BSISUITE_MIMETYPE_JPG BSISUITE_MIMETYPE_GIF BSISUITE_MIMETYPE_TXT BSISUITE_MIMETYPE_HTM BSISUITE_MIMETYPE_HTML BSISUITE_MIMETYPE_RTF BSISUITE_MIMETYPE_BMP BSISUITE_MIMETYPE_VDX	Sets the path to MIME types for downloading the type of file indicated.	Different paths are set by default for the type of file indicated.
BSISUITE_DOCMODE_PDF	Sets the mode (attachment or inline) for downloading different file types.	A value of “attachment” or “inline”. The default is “attachment”.
LOGDML	Indicates whether logging is enabled for DML.	By default, no value is set.
HideDB	Indicates a setting used internally by Suite for hosting clients.	A value of “true” or “false”. The default is “false”.
ForceSmallDigest	Indicates Suite will use the standard strength to decrypt information stored in the database even if the unlimited strength Java security policy files are deployed (see “Troubleshooting Installation” on page 115 for more information).	A value of “true” or “false”. The default is “false”.
DisableLoginPage	Indicates if the login page is disabled for SiteMinder login authentication.	A value of “true” or “false”. The default is “false”.
VisioTemplatePath VisioStencilPath	Sets the path to the Microsoft Visio files used by CorpCharts to render charts.	The URL or UNC path to the template and stencil files for Microsoft Visio. By default, the path is set to the files hosted by Suite (requires an Internet connection and firewall access).
javax.xml.xpath.XPathFactory.uri javax.xml.xpath.XPathFactory.implementation	Sets the path to the JAXP configuration.	The URL or path to the JAXP configuration. The default values vary according to the property.
AllowSelfSignedCerts	Indicates if self-signed certificates are acceptable when conducting HTTPS transactions.	A value of “true” or “false”. The default is “false”.
AllowAllCerts	Indicates if all certificates are acceptable when conducting HTTPS transactions.	A value of “true” or “false”. The default is “false”.
InstantReportMaxCount CsvExportMaxCount	Sets the maximum number of records that can be returned when running an instant report or exporting records to a CSV file.	Any integer value. The default is “2000”.
ErrorMapFileUrl	Sets the path to a text file that can be used to map errors to messages. Each Suite release contains an errormap.txt file in the root directory where the application was deployed.	The URL path to the error map file. By default, the path is set to the file hosted by Suite (requires an Internet connection and firewall access).
BusinessObjectsReportSchedulingDefaultFromEmail	Sets the e-mail address to be used from which to send scheduled	The default is “alerts@bridge-

Property	Description	Values
	reports if user has no e-mail address.	way.com”.
EmailSubjectPrefix	Sets the prefix used in the subject field of an e-mail sent for notification of an invoice submission triggered by the Smart Invoice tasks.	The text to appear in the Subject field on the e-mail.
HideEnhancementRequestLink	Indicates if the Enhancement Request link is displayed on the Tools page. The default is to show the link, which allows users to access the <i>Secretariat/eCounsel Enhancement Request Form</i> page on the Mitratech Website.	A value of “true” or “false”. The default is “false”.
OutlookPluginDisabled	Disables the Mitratech Office Link Outlook add-in, overriding attribute values in the Suite Manager settings.	A value of “none”, “all”, or database aliases separated by a comma delimiter. The default is “none”.
OfficePluginDisabled	Disables the Mitratech Office Link Office add-in, overriding attribute values in the Suite Manager settings.	A value of “none”, “all”, or database aliases separated by a comma delimiter. The default is “none”.
InstallerURL	Sets the path to a xml file that can be used to designate the location of the Mitratech Office Link installers.	The URL path to the xml file
OfficeLinkTokenExpiration	The interval in seconds that a user’s session will stay active in the Office Link add-ins before the user’s session ends.	Default is 2592000 (30 days).
EOMaxStackSize	Configures the Editible Object Stack size	Default value is 40.

Appendix B: Customizing Log File Properties

Suite uses the Log4j package to output log statements to several output targets. Logging behavior is controlled by editing the **log4j.properties** configuration file. When making changes to this file, first retain a backup of the original file, and test changes in a testing or development environment before implementing in a production environment.

Log4j has three main components: loggers, appenders, and layouts that direct the type, level, and formatting of log messages. Appenders are the output destinations to which the logging requests can be printed. The following can be used:

- FileAppender – adds log events to a file.
- RollingFileAppender – adds log events to a file, then creates a new file when the log file reaches a specified size.
- DailyRollingFileAppender – adds log events to the end of a log file, then creates a new log file daily.

Editing the log4j.properties File

1. Open Notepad or another text editing program.
2. Click **File** and select *Open*.
3. On the **Open** dialog box, browse to the following location:

```
<Install>\<Context>\web-inf\classes\com\bsi\attributes
```

where *<Install>* is the installation directory for Suite on the Web server and *<Context>* is the name of the .war or .ear file). For example:

```
C:\tomcat8\webapps\suite8\web-inf\classes\com\bsi\attributes
```

4. In the Files of type field, select *All Files*.
5. Select the **log4j.properties** file.
6. Click **Open**.
7. Make changes as needed (see below).
8. Click the **File** menu and select *Save*.
9. Restart the Web service.

Changing the RollingFileAppender Parameters

For an appender that uses RollingFileAppender, do the following:

- Search for `MaxFileSize=` and replace the value with the number of megabytes for the desired log file size. The default is “10MB”.
- Search for `MaxBackupIndex=` and replace the value with the number of backup files to store before overwriting. The default is “10” files.

Changing the DailyRollingFileAppender Parameters

For an appender that uses `DailyRollingFileAppender`, do the following:

- Search for `DatePattern=` and replace the value with one of the following:

DatePattern	Description
' . 'yyyy-MM	Log file rolls on the first of each month (example: <i>name.log..2010-01</i>).
' . 'yyyy-ww	Log file rolls on the first of each week (example: <i>name.log.2010-01</i>).
' . 'yyyy-MM-dd	Log file rolls at midnight each day (example: <i>name.log.2010-01-01</i>).
' . 'yyyy-MM-dd-a	Log file rolls at midnight and noon each day (example: <i>name.log.2010-01-01-PM</i>).
' . 'yyyy-MM-dd-HH	Log file rolls at the start of each hour (example: <i>name.log.2010-01-01-15</i>).
' . 'yyyy-MM-dd-HH-mm	Log file rolls at the beginning of each minute (example: <i>name.log.2010-01-01-15-52</i>).
' . 'yyMMddHHmm	Log file rolls at the beginning of each minute (example: <i>name.log.1001011552</i>).

- Do not enter a value for `File=` because Suite overrides the directory path at runtime to write log files to the data root configured for the application.

Adding a DailyRollingFileAppender for Login Logs

Add the following section to the file:

```
# LOGIN Appender
log4j.logger.Suite.com.bsi.datalogic.admin.UserLogin=INFO, Login
log4j.appender.Login=org.apache.log4j.DailyRollingFileAppender
log4j.appender.Login.Name=Suite.com.bsi.datalogic.admin.UserLogin
log4j.appender.Workflow.DatePattern=' . 'yyyy-MM-dd-a
log4j.appender.Login.MaxBackupIndex=10
log4j.appender.Login.layout=org.apache.log4j.TTCCLayout
log4j.appender.Login.layout.DateFormat=ISO8601
```

The `yyyy-MM-dd-a` value for `DatePattern` denotes that the file will be rolled at 12 noon and 12 midnight each day.

Appendix C: Clustering the Suite Server

For any Web application such as Suite, performance and continuity of use of the application can be enhanced by deploying the Web application in an environment that is cluster-aware, meaning that the application itself resides on multiple instances of the Java application server, and each instance is aware of the other instances for session replication. This approach allows for gains in performance because multiple server machines can host each instance, leveraging the power of each server separately and as a group. The application also becomes more “scalable” because more users can access the application concurrently. In order to successfully configure such a deployment, a load balancer should be used to balance the load between each instance of the application.

A number of methods of balancing the application servers exist; both hardware and software solutions exist for load balancing and fail-over of servers. When combined with a third-party load balancer solution, Suite is designed to be a scalable software solution to match the needs of a growing numbers of users. Refer to the detailed documentation of the vendor’s software for more information on installing and configuring load balancing in your environment.

Creating Database Connections

1. Create a database connection on one instance of the Suite server.
2. On the **Add/Edit Database Item** window, two settings must be changed for a clustered environment:

In the *Scheduler Service Settings* area, by default the *Automatically Start* checkbox is checked so that the scheduler starts when the Java application server is started. If you are creating a database connection for a clustered environment, uncheck this checkbox so the scheduler does not run on multiple instances.

If the deployment of Suite has multiple instances, click the *Clustered* checkbox so that any time a scheduled task is executed on one instance, the scheduler on any other instances will not attempt to execute the scheduled task at the same time or after it has already run.
3. Click **Save** to return to the **Database Properties Administrator** page.
4. Copy the `<Install>\webapps\<Context>\WEB-INF\classes\com\bsi\attribute\dbms.enc` file from the instance that was configured in Steps 1-3 to each instance in the clustered environment.
5. Edit the database connection on one instance of the Suite server to check the *Automatically Start* checkbox in the *Scheduler Service Settings* area of the **Add/Edit Database Item** window so that only one instance has the scheduler set to automatically start.

Configuring the Data Root

After installing Suite Manager, the Data Root folder structure must be configured. The Data Root allows for separation of data and log files from the application hierarchy in order to make upgrades simpler. For clustered environments, the Data Root should be the subdirectory for all instances in the cluster. In other words, there must be only one Data Root path that all nodes in a cluster access. Mitrstech recommends creating the path on a separate computer, not in the cluster, to act as a Data Root server. Otherwise, if one of the instances in the cluster is the Data Root server and fails for any reason, the other nodes in the cluster will not be able to access the Data Root. A Universal Naming Convention (UNC) path can be used to specify the Data Root.

Setting Properties

Most properties are set using the System Settings component of Suite Manager. However, a system administrator also can set properties using the **darwin.properties** file within the Suite server application. The following settings should be configured for a clustered environment:

- **EnableCacheRefreshNotifier** -- Indicates if a notification will be sent to all instances if a cluster cache refresh is needed.
- **ClusteredNodePrefix** -- Prepends the name of a log file at runtime with the text specified, so log files are not overwritten. `$MACHINE$` is the preferred value to use.

1. On one instance of the Suite server, open Notepad or another text editing program.
2. Click **File** and select *Open*.
3. On the **Open** dialog box, browse to the following location:

```
<Install>\<Context>\web-inf\classes\com\bsi\attributes
```

where *<Install>* is the installation directory for Suite on the Web server and *<Context>* is the name of the `.war` or `.ear` file). For example:

```
C:\tomcat8\webapps\suite8\web-inf\classes\com\bsi\attributes
```

4. In the Files of type field, select *All Files*.
5. Select the **darwinmaster.properties** file.
6. Click **Open**.
7. Copy the following properties:

```
#Cluster Cache Refresh Notification
#EnableCacheRefreshNotifier=true
```

```
#Prefix to be appended to the log file @ runtime so logs of clustered nodes
don't overwrite each other.
```

```
# Use $MACHINE$ to automatically pick the network machine name.
ClusteredNodePrefix=
```

8. Paste the section in the **darwin.properties** file (located in the same directory as **darwinmaster.properties**).
9. Remove the pound sign (#) from the **EnableCacheRefreshNotifier** property so that the value is “true”.
10. Type a value for the **ClusteredNodePrefix** property. Mitrtech recommends using the “`$MACHINE$`” value for the property. The file contents should now appear as follows:

```
# Cluster Cache Refresh Notification
EnableCacheRefreshNotifier=true
```

```
# Prefix to be appended to the log file @ runtime so logs of clustered nodes
don't overwrite each other.
```

```
# Use $MACHINE$ to automatically pick the network machine name.
ClusteredNodePrefix=$MACHINE$
```

11. Click the **File** menu and select *Save*.
12. Copy the file to all other instances in the clustered environment.
13. Restart the Web services.

Appendix D: Example Metadata Template for Mitratech Office Link Installers

You can use this example template for creating the metadata xml file that designates the location of the Mitratech Office Link installers and Release Notes. When using this template, replace the information in parentheses with your specific information. For more information, see “Installing Mitratech Office Link” on page 59.

```
<installers>
  <eCounsel>
    <Office_Ec>
      <name_off>eCounsel Office Installer</name_off>
      <version_off>(eCounsel Office Plugin Version Number)</version_off>
      <filesize32_off>(File Size on Megabytes for 32 bit eCounsel Office
plugin installer)</filesize32_off>
      <filesize64_off>(File size on Megabytes for 64 bit eCounsel Office
plugin installer)</filesize64_off>
      <readme_off>(URL for the eCounsel Office plugin read me file)
</readme_off>
      <link32_off>(URL for the 32 bit eCounsel Office plugin installer)
</link32_off>
      <link64_off>(URL for the 64 bit eCounsel Office plugin installer)
</link64_off>
    </Office_Ec>
    <Outlook_Ec>
      <name_out>eCounsel Outlook Installer</name_out>
      <version_out>(eCounsel Outlook plugin Version
Number)</version_out>
      <filesize32_out>(File size on Megabytes for 32 bit eCounsel
Outlook plugin installer)</filesize32_out>
      <filesize64_out>(File size on Megabytes for 64 bit eCounsel
Outlook plugin installer)</filesize64_out>
      <readme_out>(URL for the eCounsel Outlook plugin read me file)
</readme_out>
      <link32_out>(URL for the 32 bit eCounsel Outlook plugin installer)
</link32_out>
      <link64_out>(URL for the 64 bit eCounsel Outlook plugin installer)
</link64_out>
    </Outlook_Ec>
  </eCounsel>
  <Secretariat>
```

```
<Office_Sec>
    <name_off>Secretariat Office Installer</name_off>
    <version_off>(Secretariat Office Plugin Version
Number)</version_off>
    <filesize32_off>(File Size on Megabytes for 32 bit Secretariat
Office plugin installer)</filesize32_off>
    <filesize64_off>(File size on Megabytes for 64 bit Secretariat
Office plugin installer)</filesize64_off>
    <readme_off>(URL for the Secretariat Office plugin read me file)
</readme_off>
    <link32_off>(URL for the 32 bit Secretariat Office plugin
installer) </link32_off>
    <link64_off>(URL for the 64 bit Secretariat Office plugin
installer) </link64_off>
</Office_Sec>
<Outlook_Sec>
    <name_out>Secretariat Outlook Installer</name_out>
    <version_out>(Secretariat Outlook plugin Version
Number)</version_out>
    <filesize32_out>(File size on Megabytes for 32 bit Secretariat
Outlook plugin installer)</filesize32_out>
    <filesize64_out>(File size on Megabytes for 64 bit Secretariat
Outlook plugin installer)</filesize64_out>
    <readme_out>(URL for the Secretariat Outlook plugin read me file)
</readme_out>
    <link32_out>(URL for the 32 bit Secretariat Outlook plugin
installer) </link32_out>
    <link64_out>(URL for the 64 bit Secretariat Outlook plugin
installer) </link64_out>
</Outlook_Sec>
</Secretariat>
</installers>
```

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