Image Services Resource Adapter

Installation and Deployment Guide

For BEA WebLogic

Release 3.2.1

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About This Manual

This manual provides information about installing and configuring Image Services Resource Adapter (ISRA) version 3.2.1 on BEA WebLogic 8.1 platform.

Conventions Used In the Document

The table lists the formatting conventions used in this document.

Convention	Description
`Fixed Size font`	Used for commands entered at the system command prompt.
Arial font	Used for important notes
Bold	Occasionally used to refer to portions of user interface, such as the Next button or the Install button

Education

FileNet provides various forms of instruction. Please visit the Global Learning Services in FileNet's Service and Support area at www.filenet.com.

Related References

For all ImageViewer parameters please refer to the FNImageViewer documentation provided with ISRA installation media.

<ISRA-home>\ISRA321\FNImageViewer\docs

For all P8 System Manager related information, please refer to P8 System Manager documentation, provided with ISRA installation media.

<ISRA-home>\ISRA321\SystemManager\docs

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1
ISRA Installation

This document describes how to install, deploy and configure FileNet Image Services Resource Adapter (ISRA) version 3.2.1 on BEA WebLogic Server 8.1 platform.

ISRA Overview

Integration with existing Enterprise Information Systems (EIS) is the key to success in business moving towards an e-business strategy.

The Java 2 Enterprise Edition (J2EE) Connector Architecture defines a standard architecture to connect the J2EE platform with the heterogeneous EIS's.

ISRA is a system-level software driver compliant with the J2EE Connector Architecture version 1.0. It is used by a Java application component or client to connect to FileNet Image Services (IS).

ISRA provides an alternative to IDM Web Services for IS customers. In addition, it provides a Web solution that does not require Microsoft technology or product support.

ISRA Package Overview

ISRA is bundled into a single package called the Resource Adapter Module, which contains all the necessary files and information for the correct deployment on supported Application Server.

ISRA is available in two editions:

- View edition: Supports ISRA Read-only interactions
- Enterprise edition: Supports additional interactions that allow creation of documents and folders, and update of their properties. User can also print/fax the documents.

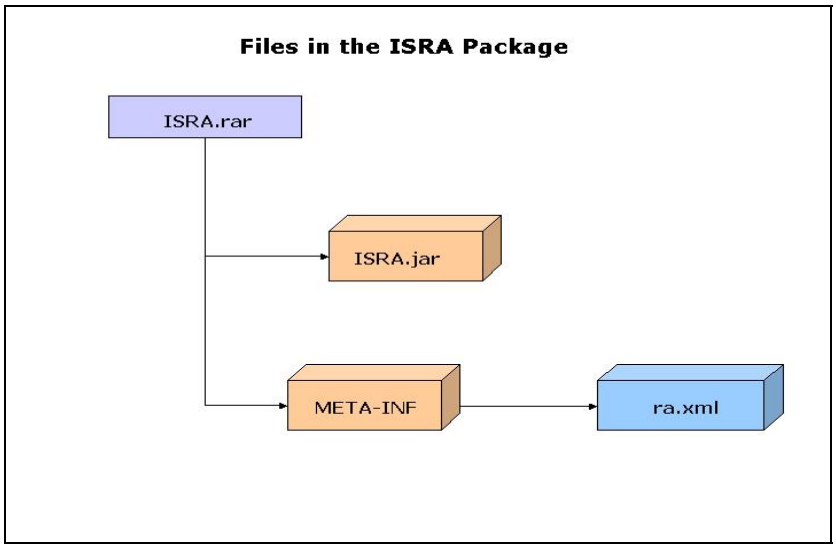
Resource Adapter Module

The contents of the Resource Adapter Module are:

- Jar file that consists of ISRA class library.
- Deployment descriptor (XML file) that defines the run-time behavior of ISRA.

Structure of the ISRA Package

The following figure illustrates a listing of files in the ISRA package:



Installing ISRA

ISRA is installed from an executable installer file. The steps for installation are:

Note The screen shots shown in this guide (taken on Windows Server, which includes both 2000 and 2003 Servers) may look slightly different on your system, depending on the platform version, settings etc.

1. Mount CD-ROM

On UNIX:

Perform this step only if CD-ROM device is not already mounted. Note that you must have the root user privileges to perform these tasks. Load the ISRA CD into the drive, open a terminal window and create the /cdrom directory using the following command:

```
# mkdir /cdrom
```

On Sun Solaris 9:

– Using a preferred editor (for example, vi), edit the /etc/vfstab file by adding an entry:

```
/vol/dev/dsk/c0t2d0/cdrom - /cdrom hsfs 4 - ro
```

where, `/vol/dev/dsk/c0t2d0/cdrom` is the CD-ROM device file path, `/cdrom` is the mount point for the CD and `hsfs` is the file system format of the CD. Refer to Solaris system manual for more details on mounting devices.

– On the system prompt, enter `# mount /cdrom` to mount the CD-ROM.

On IBM AIX 5.1 and 5.2:

At the system prompt enter the following command to mount the CD-ROM:

```
# mount –rv cdrfs /dev/cd0 /cdrom
```

where /dev/cd0 is the CD-ROM device file path, `/cdrom` is the mount point for the CD and `cdrfs` is the file system format of the CD.

On HPUX:

– Using a preferred editor (for example, vi), edit the `/etc/pfs_fstab` file by adding an entry similar to the following:

```
/dev/dsk/c2t2d0 /cdrom pfs-rrip xlat=unix 0 0
```

where `/dev/dsk/c2t2d0` is the CD-ROM device file path and `/cdrom` is the mount point for the CD.

– On the system prompt, enter:

```
# pfs_mountd &
# pfsd &
```

– On the system prompt enter the following command to mount the CD-ROM:

```
# pfs_mount /cdrom
```

To ensure that CD-ROM is mounted correctly, on a terminal window, enter `# mount.`

This lists the CD-ROM device.

On Linux:

Open a terminal window and enter `# mount /dev/hdc /mnt/cdrom`

where, `/dev/hdc` is the CD-ROM device file path and `/mnt/cdrom` is the mount point for the CD. Refer to the Linux system manual for more details on mounting devices.

To ensure that CD-ROM is mounted correctly, on a terminal window, enter `# mount`

This lists the CD-ROM device.

On Windows:

Open the explorer, and select the CD-ROM drive that contains the ISRA CD.

2. Launch the ISRA installer by executing **setup.bin** on HPUX, Linux, IBM AIX and Solaris or **setup.exe** on Windows Server.

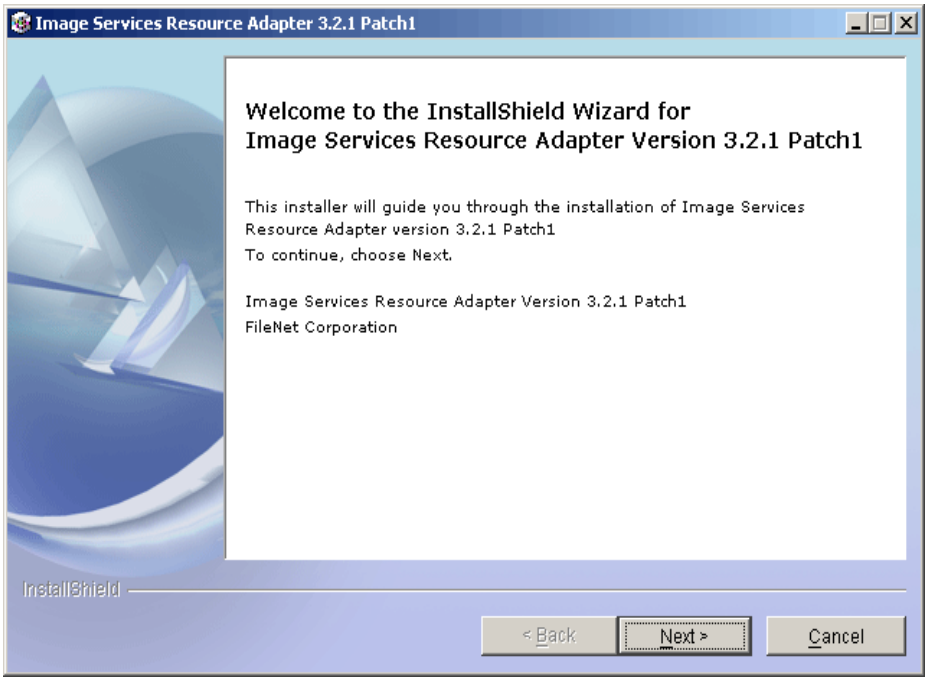
- On HPUX, Solaris, IBM AIX or Linux server, open a terminal, change directory to the respective folders on CD-ROM drive for

locating **setup.bin**. To do this, enter the following commands on the command prompt:

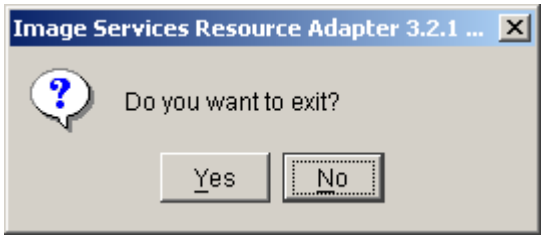
```
# cd cdrom/<HPUX, Solaris, AIX, Linux>
# ./setup.bin
```

- On Windows Server, locate **setup.exe** in the Windows folder of the CD-ROM drive. Double-click **setup.exe** to launch the ISRA installer.

The installation screen appears, as shown below:

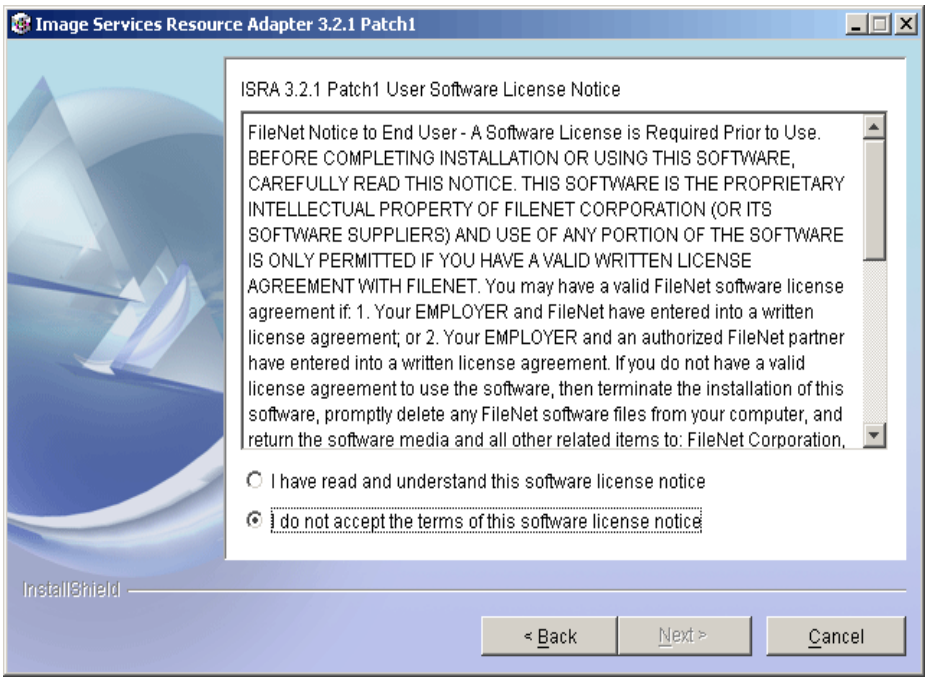


3. If user clicks **Cancel**, the following dialog box appears:

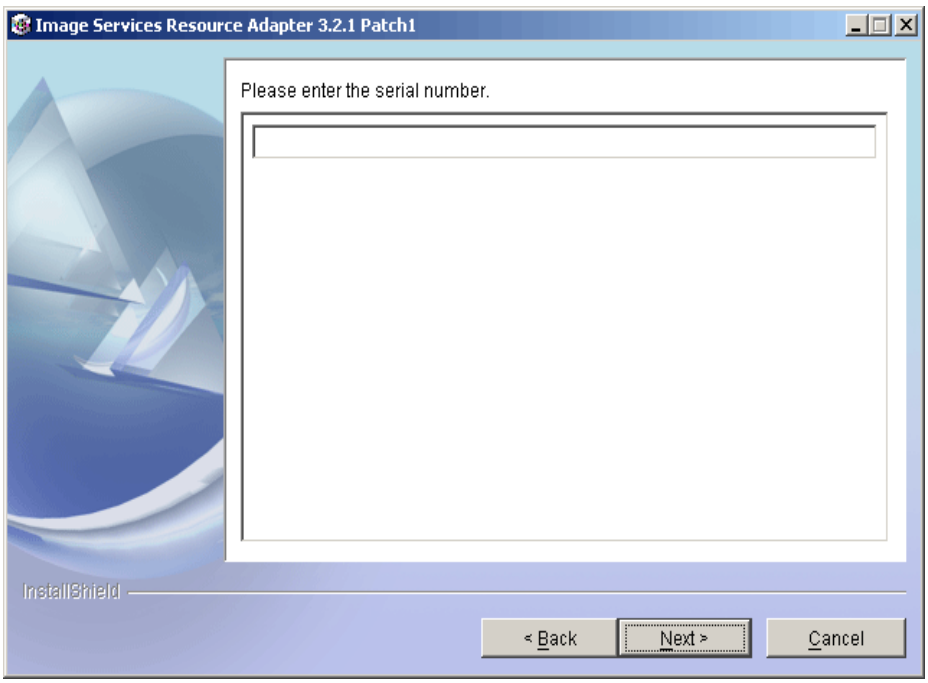


Click **No** to go back to the previous screen.

4. Click **Next** to proceed. The following screen appears:



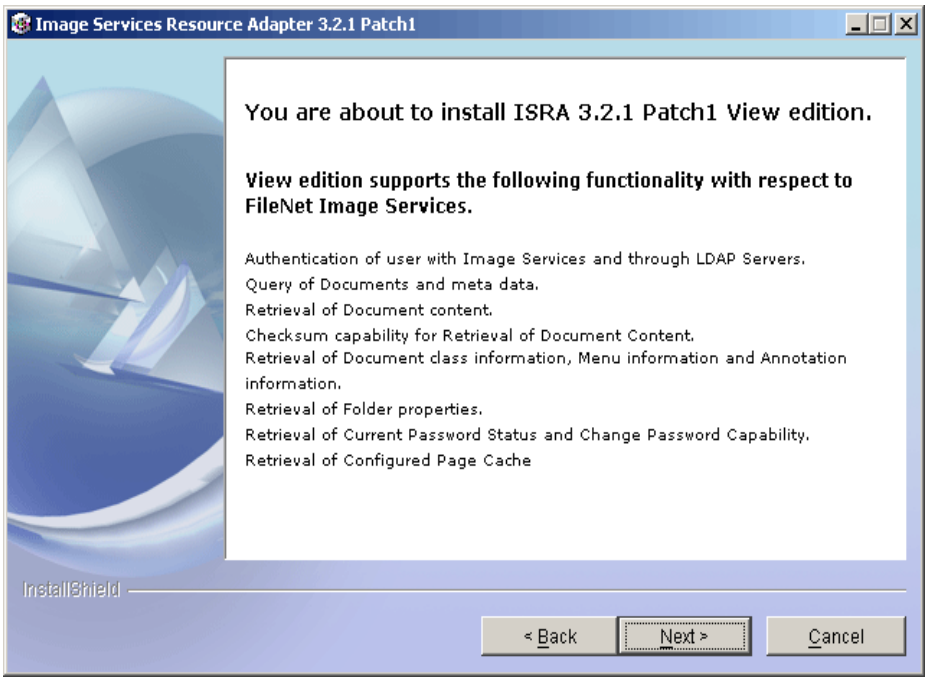
5. Accept the license agreement and click **Next** to proceed.



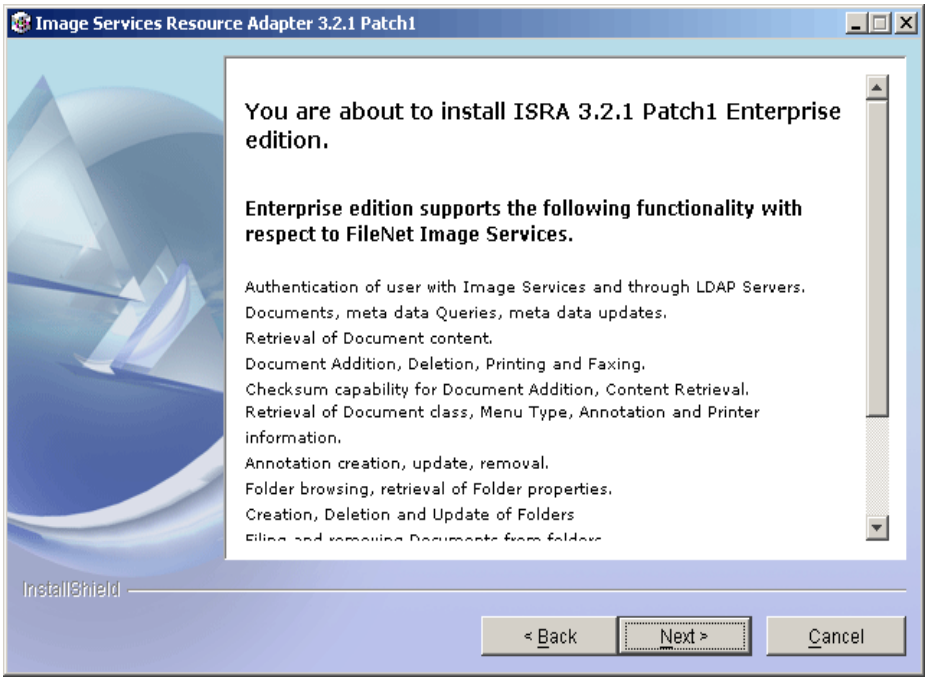
6. Enter the serial number and click **Next** to proceed.

Depending on the serial number, either View edition or Enterprise edition of ISRA will be installed.

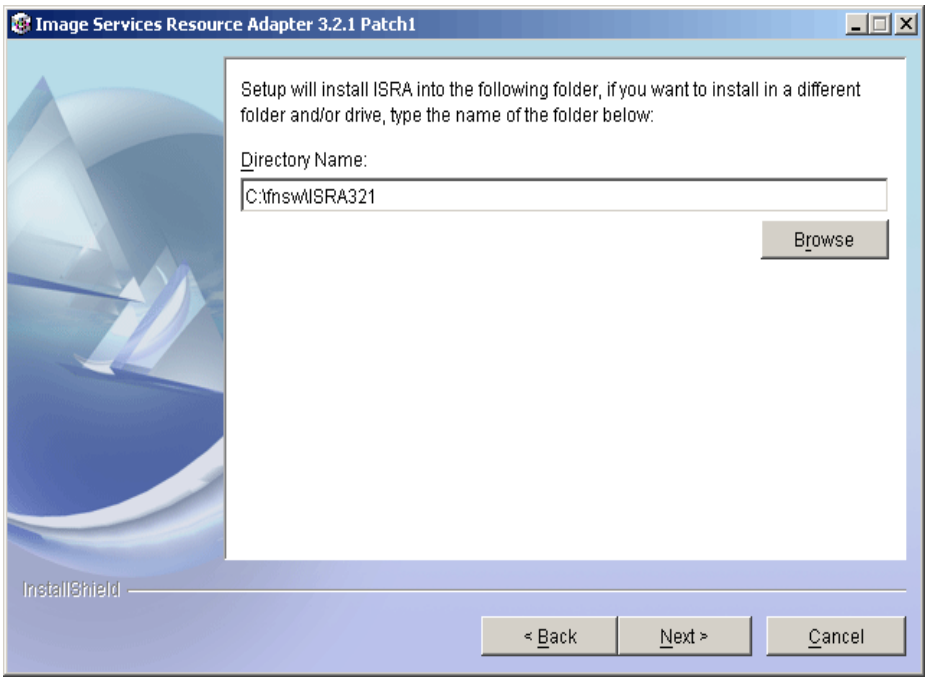
- The View edition screen appears, as shown below.



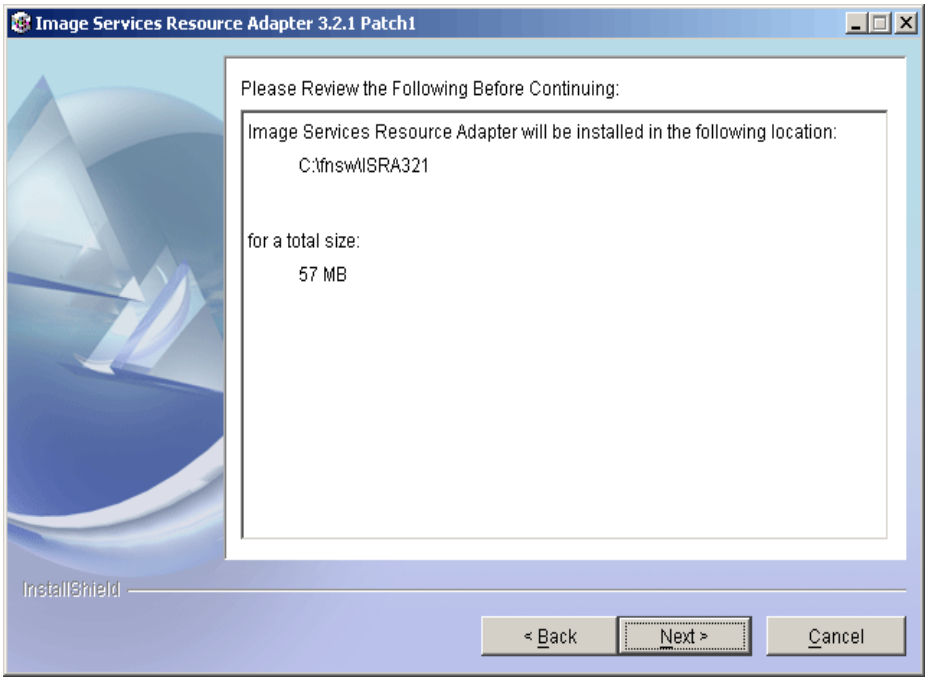
- The Enterprise edition screen appears, as shown below.



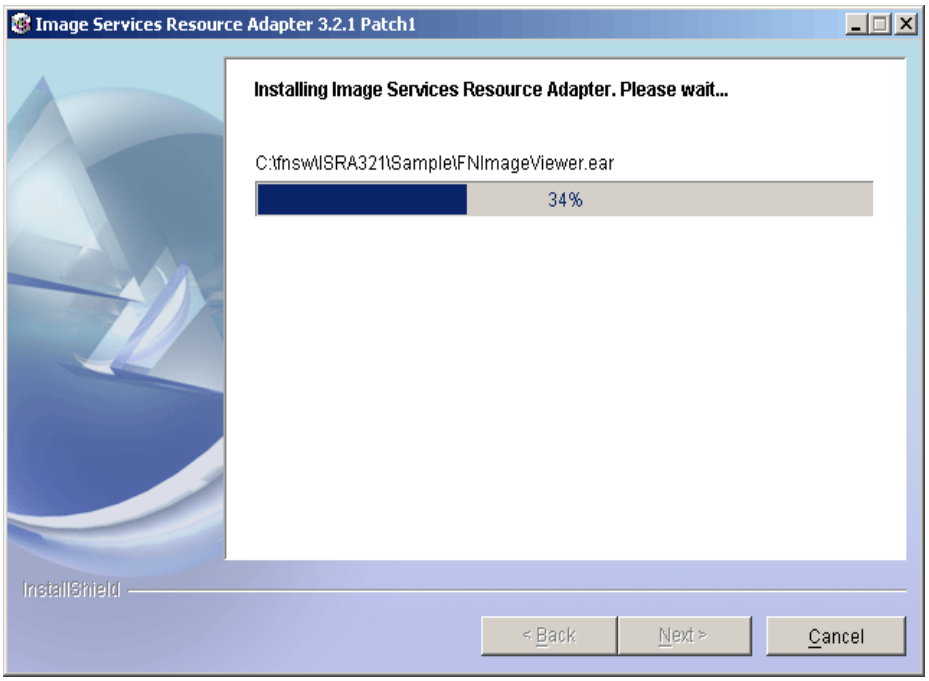
7. Click **Next** to proceed with the installation.



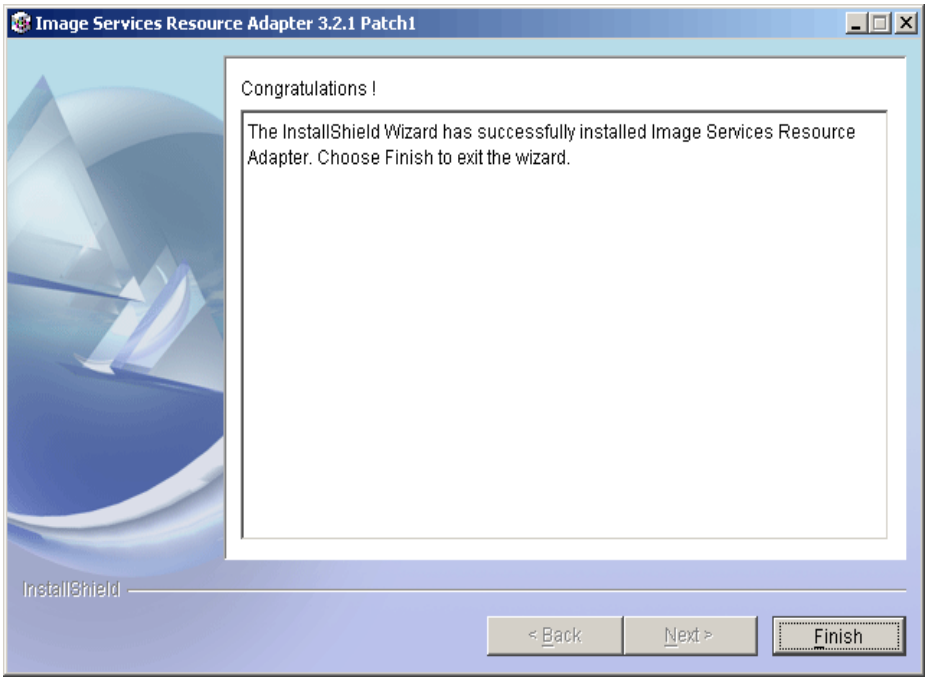
8. Choose the directory to install ISRA and click **Next** to proceed. On UNIX/Linux systems, the default path shown is `//fnsw/ISRA321`.



9. Verify the information. If there are any errors, click **Back** to make the necessary changes. Else, click **Next** to proceed with the installation of ISRA. The following screen appears:



10. The following screen appears, when installation completes:



11. Click **Finish**.

For UNIX platforms, login as root user and execute the following command to unmount the CD-ROM:

```
# umount /cdrom
```

For Linux, enter `# umount /mnt/cdrom`

Remove the CD from the drive.

Silent Installation of ISRA

For Silent Installation of ISRA, perform the following steps:

1. Execute the following command on the command prompt to generate a template file:

```
java –cp setup_ISRA321Patch1.jar run –options–template
<name of template file ,e.g., ISRASilent.txt>
```

2. Copy the template file and **setup_ISRA321Patch1.jar** to a desired location.
3. Set the following values in template file:
   - -P installLocation = <value> variable to -P ISRAProductBean.installLocation = <value>.
   - LicenseBean.selection variable as 1 to accept the license agreement
   - SerialNumberFieldBean.SerialNumber variable to the specific serial number for Enterprise or View edition
   - ISRAProductBean.installLocation variable to the directory under which the installation has to take place in the template file
4. Set the path to location containing **setup_ISRA321Patch1.jar** file on command prompt. Execute the following command to start the Silent installation:

```
java -cp setup_ISRA321Patch1.jar run -silent -options
<Real Path>/ISRASilent.txt
```

2
ISRA Deployment

ISRA can be deployed on a J2EE 1.3 compliant Application Server. This manual describes the deployment of ISRA on BEA WebLogic 8.1 platform.

Note The installation procedure for BEA WebLogic server 8.1 is outside the scope of this document. This guide assumes that the required settings and configurations have already been made.

The ISRA module is a set of Java interfaces/classes that implements J2EE Connector Architecture specified contracts and the EIS specific functionality. ISRA plugs into a J2EE 1.3 compliant Application Server in a modular manner.

Deployment Requirements

This section lists the minimum software and hardware requirements for successful deployment of ISRA on BEA WebLogic 8.1 Application Server.

Hardware Requirements

- For additional information on BEA WebLogic, visit http://e-docs.bea.com/platform/suppconfigs/index.html.
- ISRA installation will require at least 80MB free disk space.

Software Requirements

- BEA WebLogic 8.1 installed on HPUX 11i, Sun Solaris 9, LINUX, AIX 5.1 and 5.2 or a Microsoft Windows Server.
- FileNet IS 3.6 SP2 and above

Deploying ISRA

ISRA is deployed using the WebLogic server administration console. There are two ways of deploying the Resource Adapter on WebLogic 8.1:

- Deploying ISRA.rar file
- Deploying exploded archive files

Deploying ISRA.rar

To deploy the **ISRA.rar** file:

Note	WebLogic 8.1 auto-generates weblogic-ra.xml file during deployment of Resource Adapter (ISRA.rar) in archived form. The weblogic-ra.xml deployment descriptor elements and Connector Descriptor attributes (ra.xml) of the Resource Adapter can be manually edited through WebLogic 8.1 console.

1. Start the WebLogic Server.

   - On Windows Server, start WebLogic Administration Server from the Start Menu by clicking:

     Start → Programs → BEA WebLogic Platform 8.1 → User Projects → <domain_name> → Start Server.

     Alternatively, the Configuration Wizard scripts can also be used to start the Administration Server. When the Configuration Wizard is used to create a domain, the wizard also creates a script that can be used to start an Administration Server for the domain. To use the script, execute the **startWebLogic.cmd** file located at the following path:

     ```
     <WebLogic Installation Directory>\
     user_projects\domains\<domain_name>
     ```

   - On an UNIX/Linux system, login as the root user and execute the startWebLogic script, as:

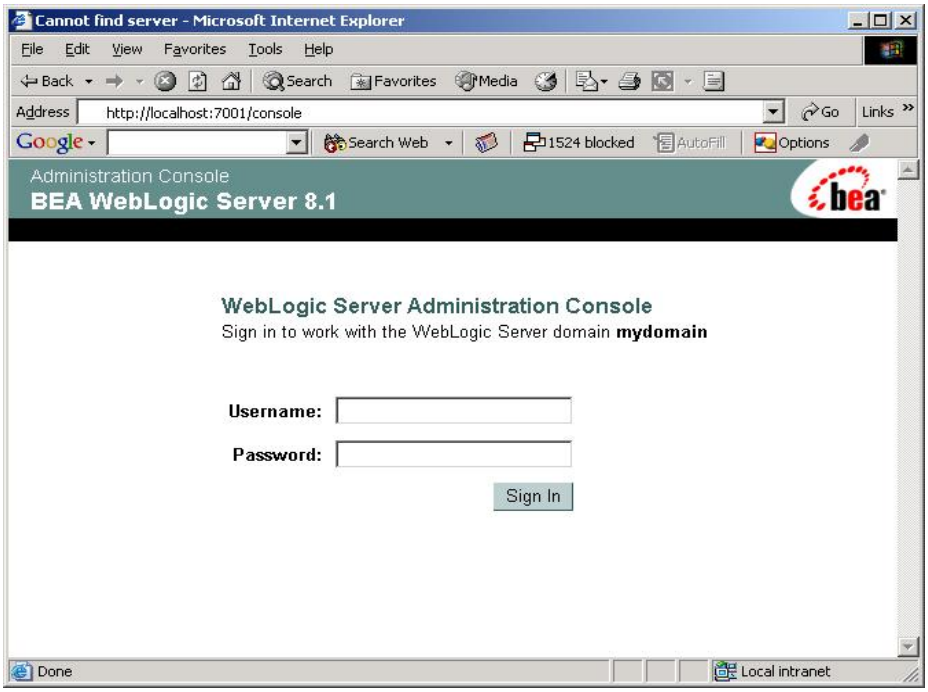
     ```
     # cd <WebLogic Installation Directory>/
     user_projects/domains/<domain_name>

     # ./startWebLogic.sh
     ```

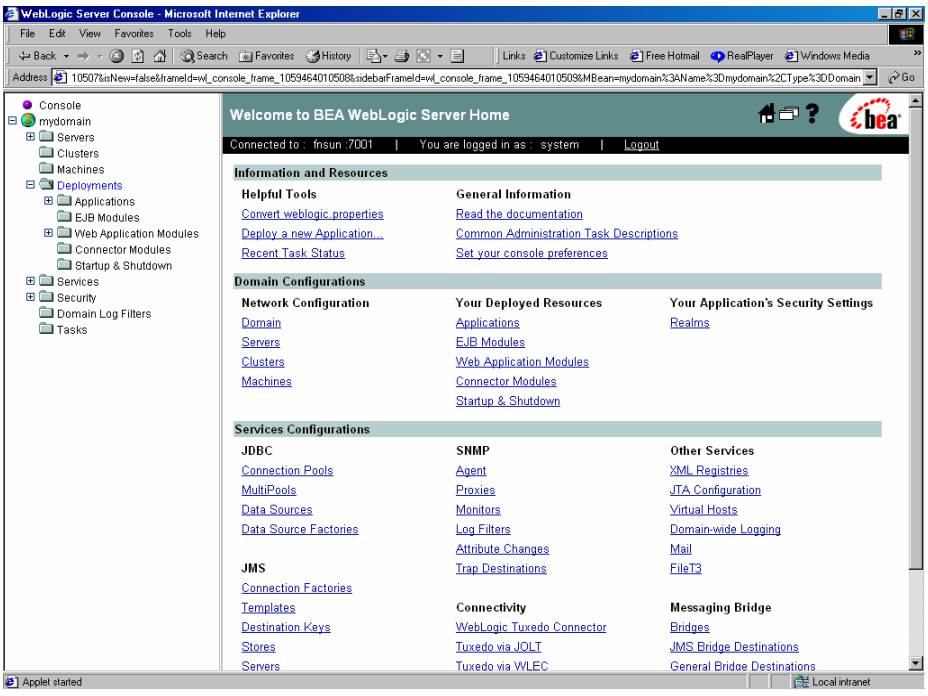
2. To open the administrative console, enter the following WebLogic admin console URL in a browser window: http://hostname:portnumber/console.

   Depending on the WebLogic admin server setup, user may be prompted to enter the WebLogic admin user name and password.

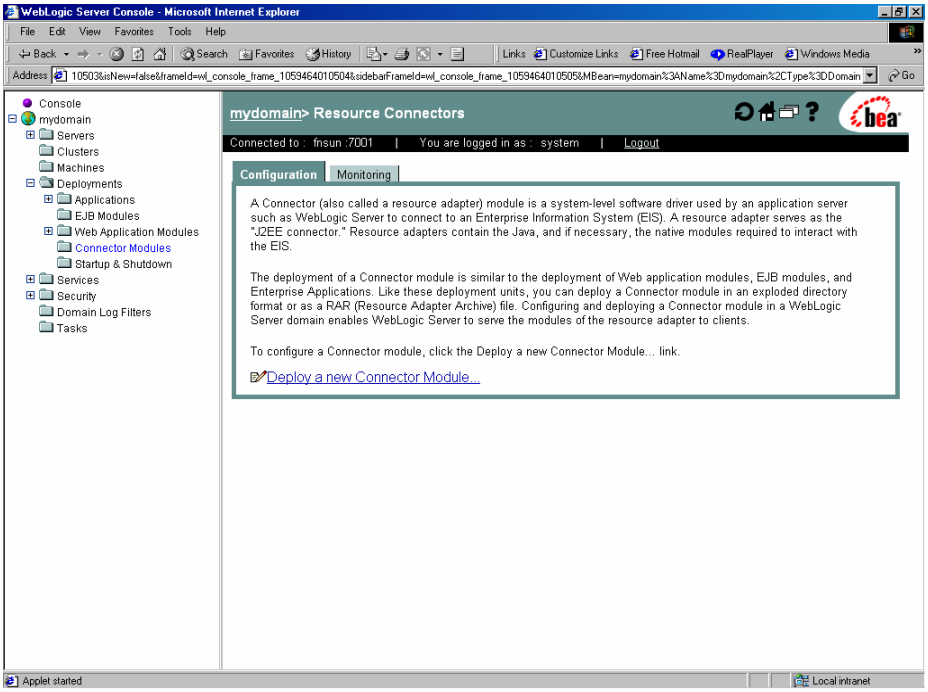
Note	The screen shots shown in this section (taken on Windows Server) might look slightly different depending on the browser, server, platform version or settings.



3. The WebLogic admin console sign on screen appears. Enter the WebLogic admin **Username** and **Password**. Click **Sign In** to access the WebLogic admin console. The following screen appears:

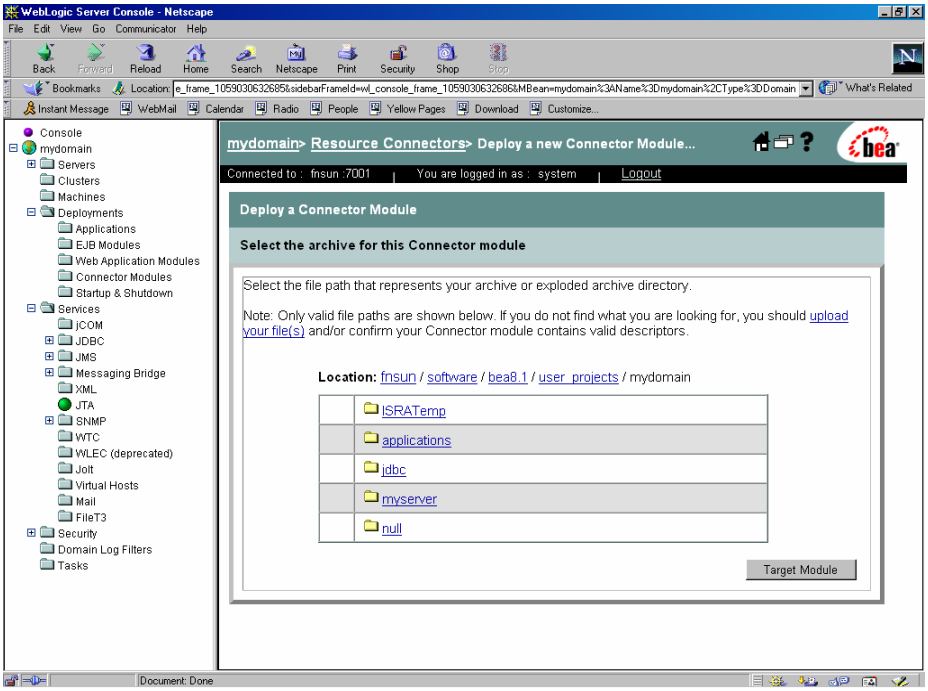


4. Under **Deployments**, click **Connector Modules**. The following screen appears:

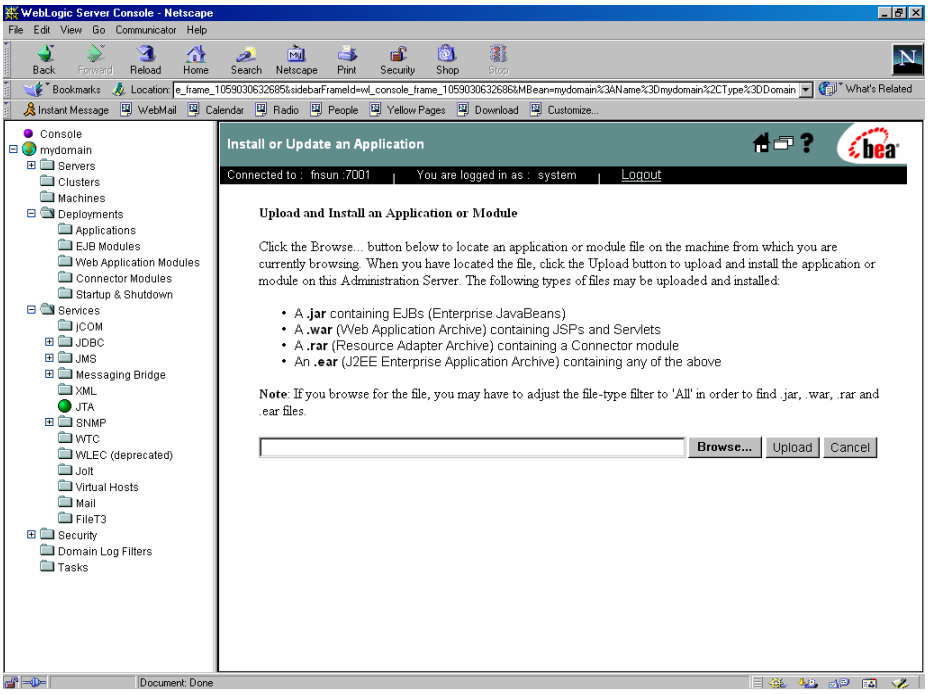


Note WebLogic 8.1 does not allow modification of the Connector Descriptor attributes. This requires modification of the attributes in the **ra.xml** file before deployment. This is explained in the Configuring Deployed ISRA section.

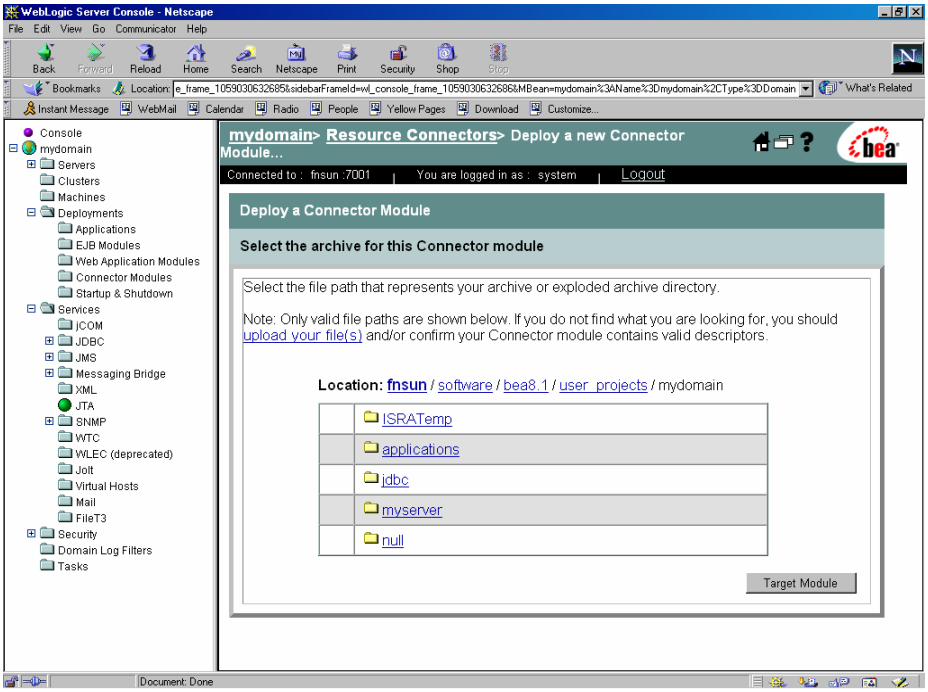
5. Click **Deploy a new Connector Module** link. The following screen appears:



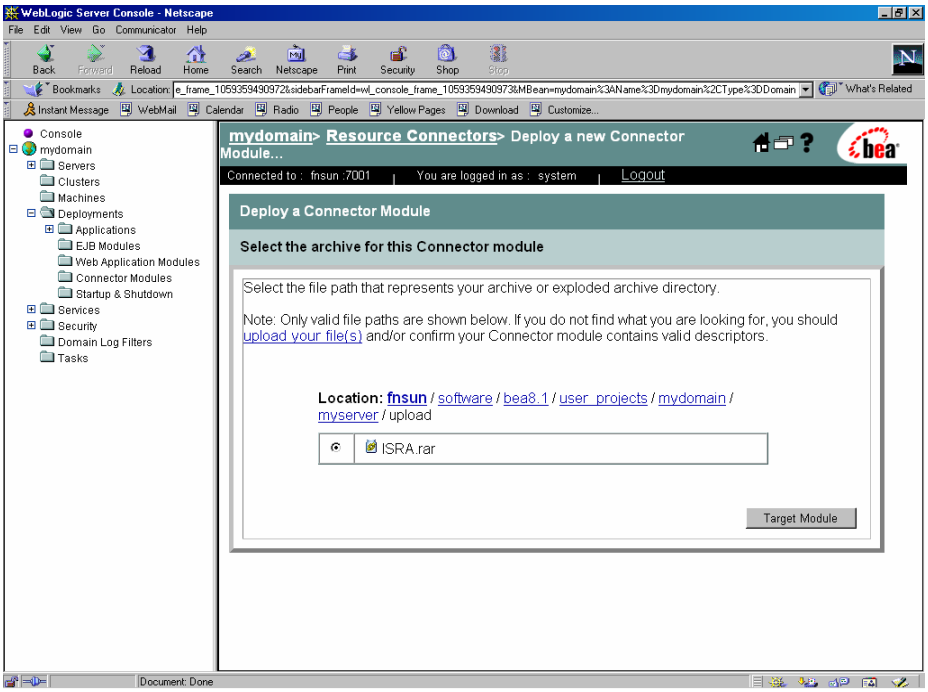
6. On the **Deploy a Connector Module** screen, click **upload your file(s)** link. The following screen appears:



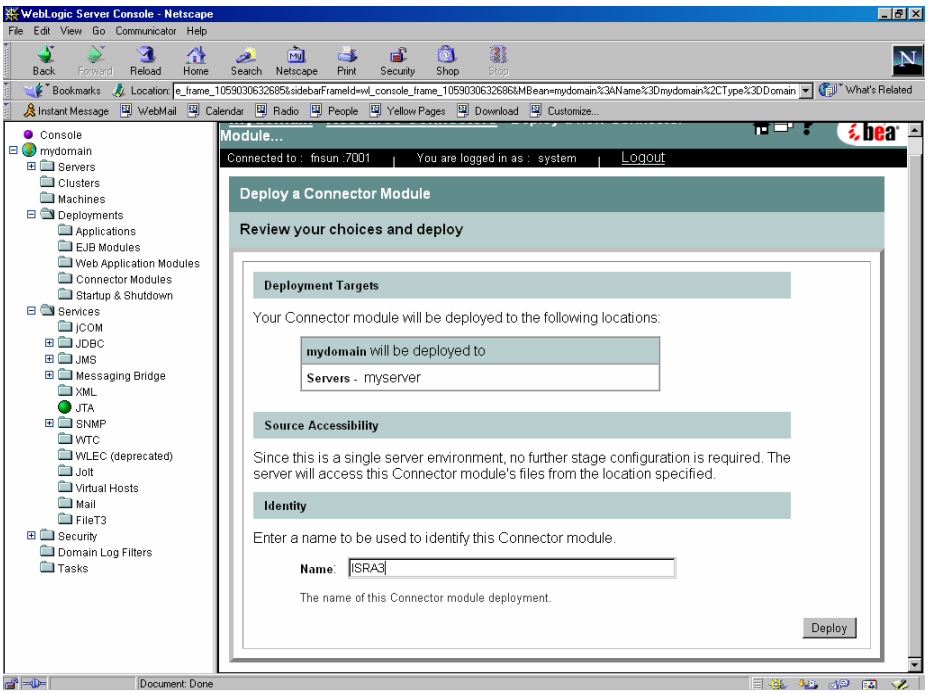
7. Click **Browse** to select the **ISRA.rar** file. The **ISRA.rar** file is located in **jar** subdirectory of the ISRA installation directory. For example, if user has installed ISRA in `C:\fnsw\ISRA` (`/fnsw/ISRA` on UNIX/Linux), the **ISRA.rar** is located in `C:/fnsw/ISRA/jar/` (`/fnsw/ISRA/jar` on UNIX/Linux) directory.
8. Click **Upload** to upload the **ISRA.rar** file. The following screen appears:



9. Click on the **<server-name>/upload** directory and check the radio button corresponding to **ISRA.rar.** The following screen appears:

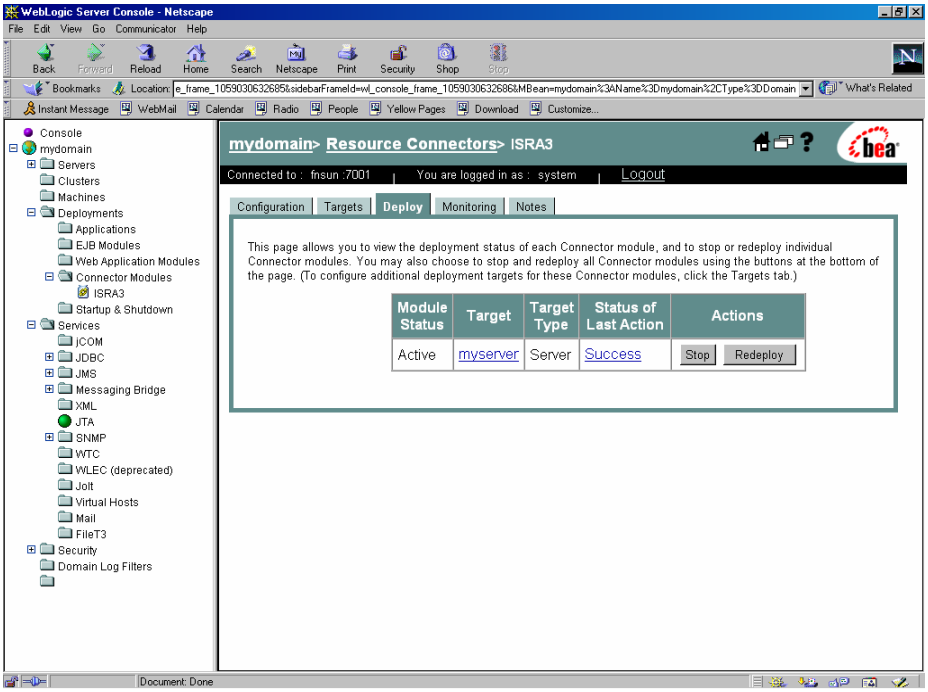


10. Click **Target Module.** The following screen appears:



This screen displays the target server on which the Connector module should be deployed.

11. Under Identity, provide a name for the Connector module. Click **Deploy** to complete ISRA deployment. The server may take some time to complete the deployment process. The following screen appears, after successful deployment:



Deploying Exploded Archive Files

To deploy the **ISRA.rar** file in **exploded** form:

Note The screen shots shown in this section (taken on Windows Server) might look slightly different depending on the browser, server, platform version or settings.

1. Create a temporary directory ISRATemp and copy **ISRA.rar** into it. Change the directory to ISRATemp and execute command `jar –xvf ISRA.rar`

Note WebLogic 8.1 does not auto-generate **Weblogic-ra.xml** file for deployment of ISRA in exploded form. Therefore, it is necessary to create the **Weblogic-ra.xml** file before deployment. Refer to Weblogic-ra.xml Deployment Descriptor Elements, for information on the **Weblogic-ra.xml** DTD.

2. Create the **Weblogic-ra.xml** file using any text editor. The **Weblogic-ra.xml** file should resemble the following specimen:

```
<!DOCTYPE Weblogic-connection-factory-dd PUBLIC"-
//BEA Systems, Inc.//DTD WebLogic 8.1.0 Connector//EN"
"http://www.bea.com/servers/wls810/dtd/Weblogic810-ra.dtd">
<Weblogic-connection-factory-dd>
      <connection-factory-name>ISCF</connection-factory-
      name>
      <jndi-name>ISCF</jndi-name>
      <pool-params>
            <initial-capacity>1</initial-capacity>
            <max-capacity>10</max-capacity>
            <capacity-increment>1</capacity-increment>
            <shrinking-enabled>true</shrinking-enabled>
            <shrink-frequency-seconds >15</shrink-
            frequency-seconds>
            <inactive-connection-timeout-seconds>0
            </inactive-connection-timeout-seconds>
            <connection-profiling-enabled>false
            </connection-profiling-enabled>
      </pool-params>
      <security-principal-map>
      </security-principal-map>
  </Weblogic-connection-factory-dd>
```

The values corresponding to all attributes can be modified as required and saved as **Weblogic-ra.xml** in the META-INF subfolder:

```
ISRATemp\ISRA.jar
\META-INF\ra.xml
\META-INF\Weblogic-ra.xml
```

3. Start the WebLogic Server.

   – On Windows Server, start WebLogic Administration Server from the Start Menu by clicking:

     Start → Programs → BEA WebLogic Platform 8.1 → User Projects → <domain_name> → Start Server.

     Alternatively, the Configuration Wizard scripts can also be used to start the Administration Server. When the Configuration Wizard is used to create a domain, the wizard also creates a script that can be used to start an Administration Server for the domain. To use the script, execute the **startWebLogic.cmd** file located at the following path:

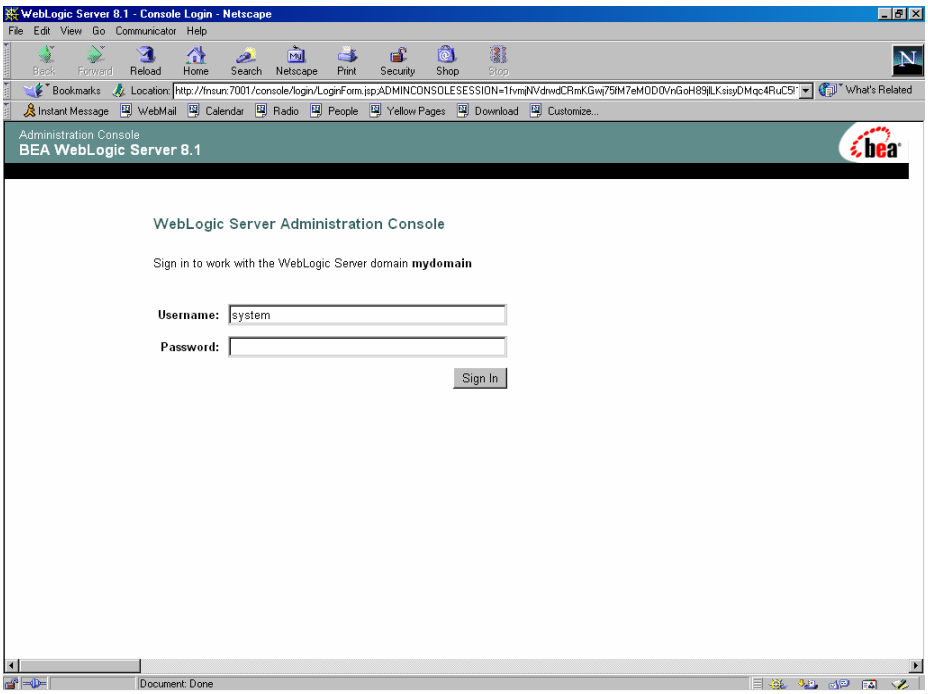
     ```
     <WebLogic Installation Directory>\
     user_projects\domains\<domain_name>
     ```

   – On a UNIX/Linux system, login as the root user and execute the startWebLogic script, as:

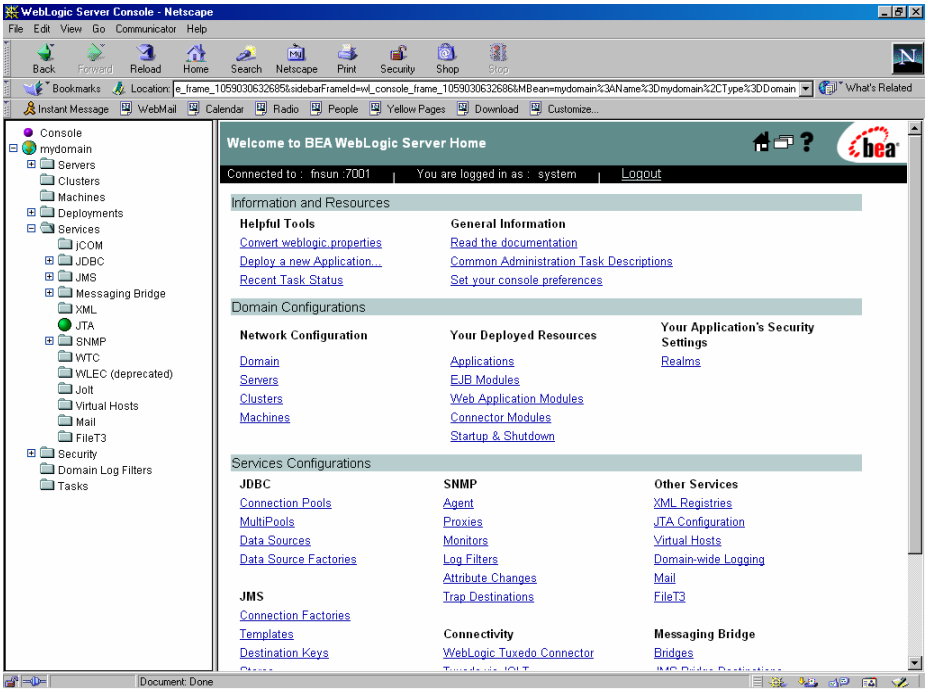
     ```
     # cd <WebLogic Installation Directory>/
     user_projects/<domain_name>
     # ./startWebLogic.sh
     ```

4. To open the administrative console, enter the WebLogic admin console URL http://hostname:portnumber/console in a browser window

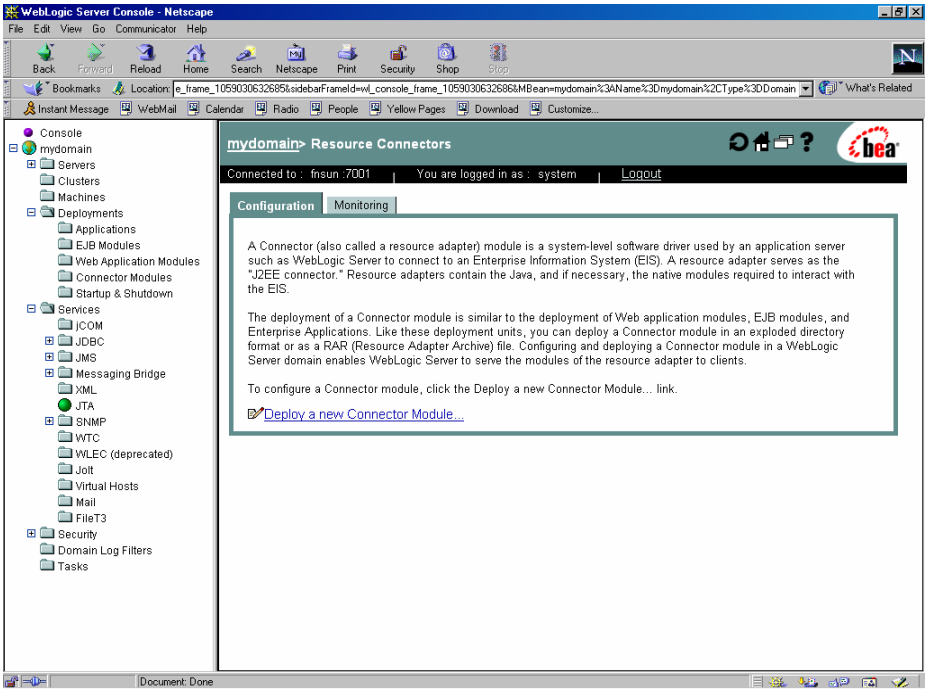
Note	Depending on the WebLogic admin server setup, user may be prompted to enter the WebLogic admin user name and password.



5. The WebLogic admin console sign on screen appears. Enter the WebLogic admin **Username** and **Password**. Click **Sign In** to access the WebLogic admin console. The following screen appears:

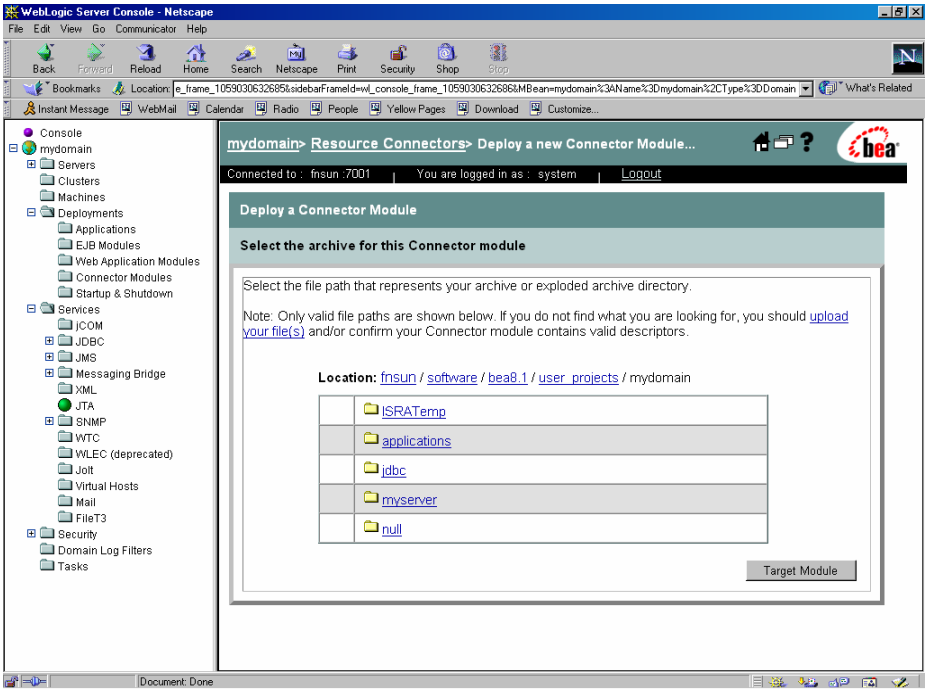


6. Navigate to **Deployments -> Connector Modules**. The following screen appears:

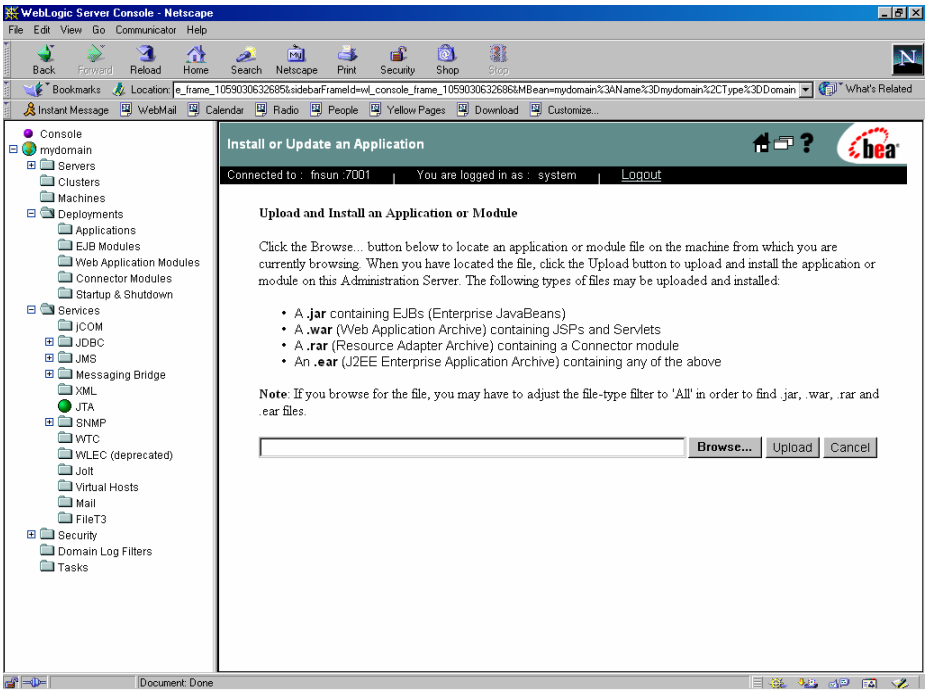


Note WebLogic 8.1 does not allow modification of the Connector Descriptor attributes. This requires modification of the attributes in the **ra.xml** file before deployment. This is explained in the Configuring Deployed ISRA section.

7. Click the **Deploy a new Connector Module** link. The following screen appears:

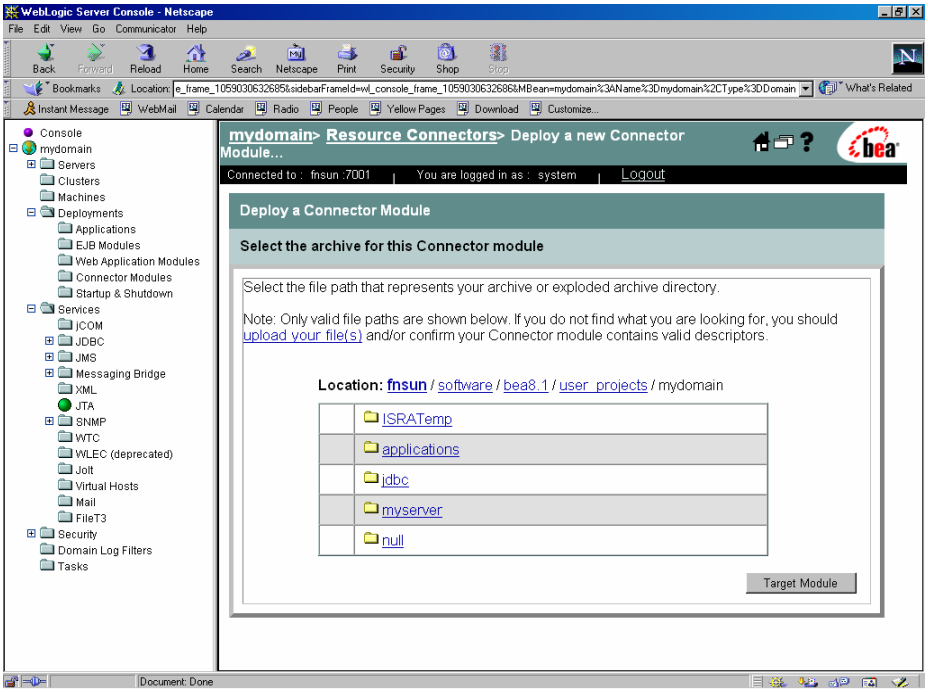


8. On the **Deploy a Connector Module** screen, click **upload your file(s)** link. The following screen appears:



9. Click **Browse** to select the **ISRA.jar** file. The **ISRA.jar** file will be located in **temp** directory. For example, if user has extracted **ISRA.rar** in `C:\temp` (`/tmp` on UNIX/Linux), the **ISRA.jar** is located in `C:\temp` (`/tmp` on UNIX/Linux) directory itself.

10. Click **Upload** to upload the **ISRA.jar** file. The following screen appears:



11. Create a new directory META-INF in the **<WebLogic Installation Directory >\user_projects\<domain-name> \<server-name>\ upload** directory and copy **ra.xml** and **Weblogic-ra.xml** into it.

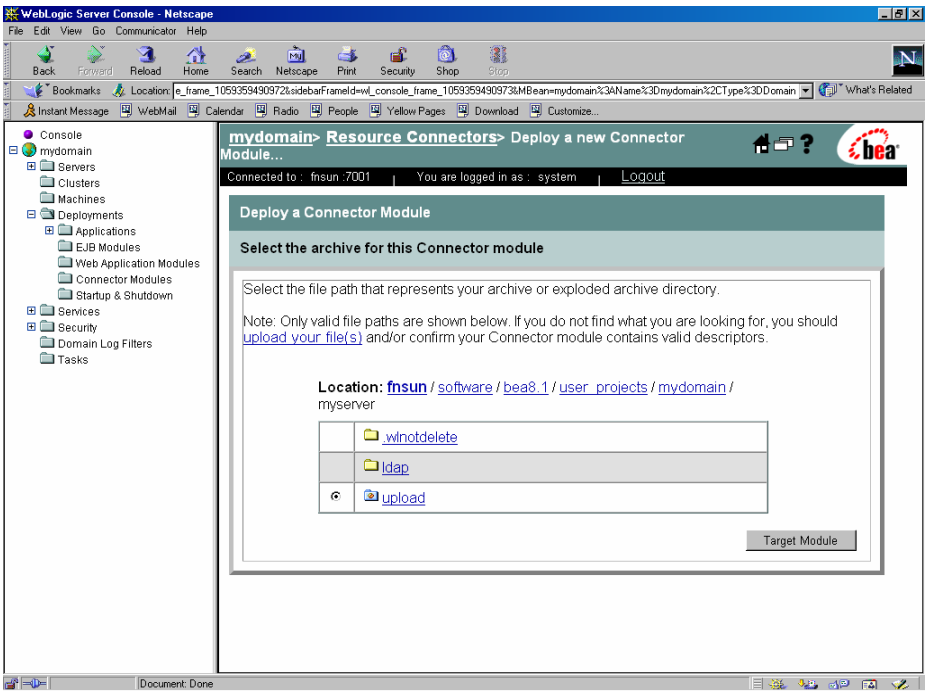
On Windows Server, enter the command:

```
copy C:\temp\META-INF <WebLogic Installation
Directory>\user_projects\<domain-name>\<server-
name>\upload\META-INF
```

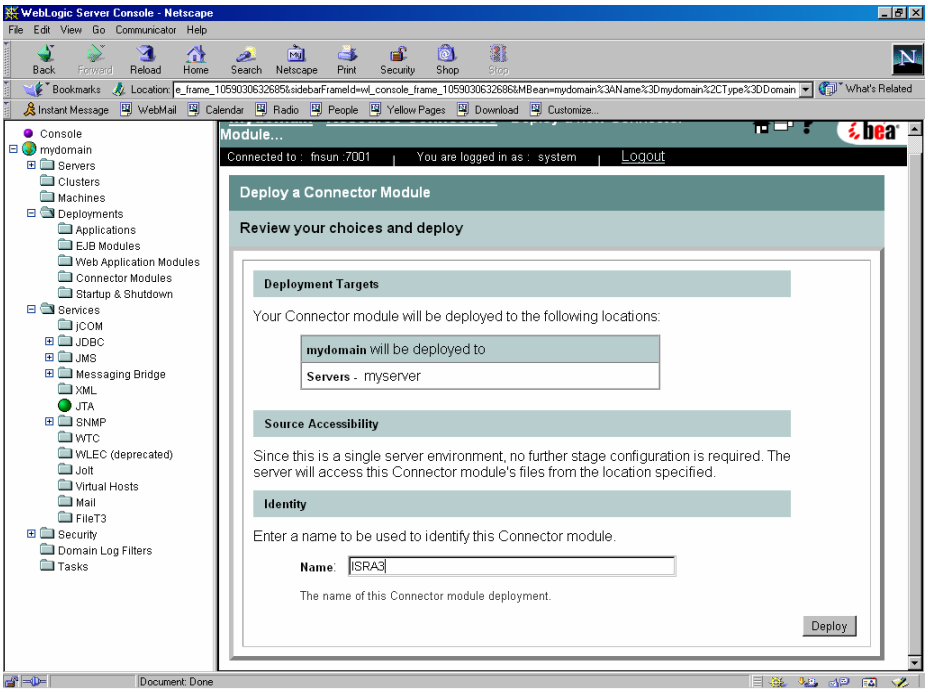
On a UNIX/Linux machine, enter the command:

```
cp /tmp/META-INF <WebLogic Installation
Directory>/user_projects/<domain-name>/<server-
name>/upload/META-INF
```

12. Click on the **<server-name>/upload** directory and check the radio button corresponding to **upload**. The following screen appears:

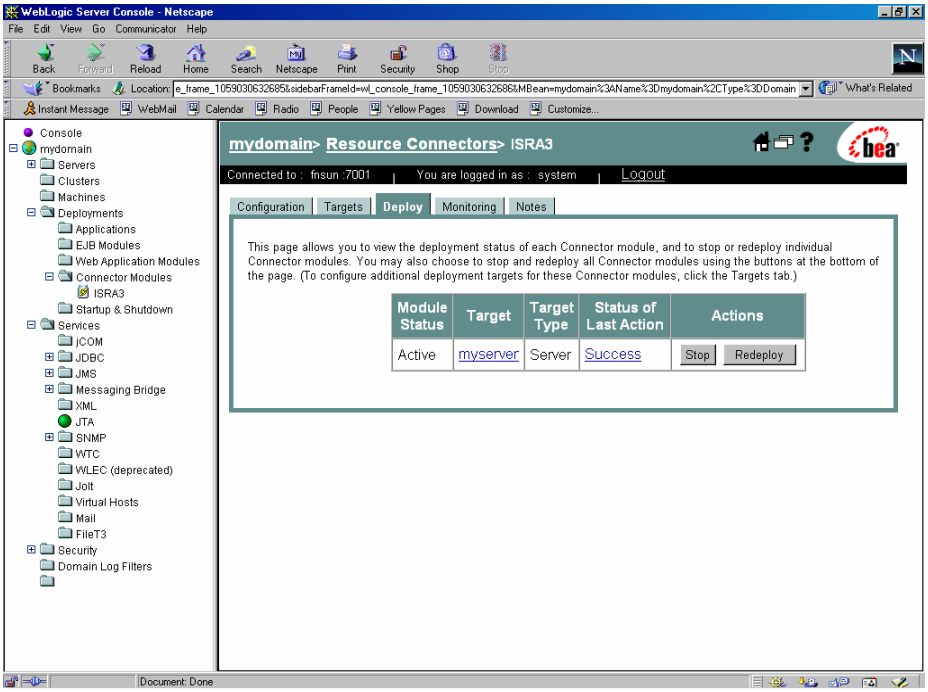


13. Click **Target Module.** The following screen appears:



This screen displays the target server on which the Connector module should be deployed.

14. Under Identity, provide a name for the Connector module. Click **Deploy** to complete ISRA deployment. The server may take some time to complete the deployment process. On completion, the following screen appears:



Mandatory Requirements for ISRA 3.2.1

The mandatory requirements for ISRA 3.2.1 include:

1. Include **ISRA.jar**, listener**.jar** and **log4j-1.2.8.jar** in the classpath of WebLogic server. To include the jar files in classpath:

   I. Navigate to the folder containing Application Server.

   II. Click **User_projects > domains > mydomain**.

   III. For Windows, open **startWebLogic.cmd** and for UNIX/Linux, open **startWebLogic.sh** in a text editor.

   IV. Include **ISRA.jar , listener.jar** and **log4j-1.2.8.jar** in the classpath.

2. Include the folder in which **WinPerfMon.dll** is present in the system path in case of Windows operating system. In UNIX/Linux, this file is not required.

3
ISRA Configuration

This chapter describes the configuration of ISRA, deployed on BEA WebLogic 8.1 Application Server.

Configuring Deployed ISRA

This section describes how to edit the ISRA deployment descriptor before deployment.

Note WebLogic 8.1 does not allow modification of the Connector Descriptor attributes. This requires modification of the attributes in the **ra.xml** file before deployment.

ISRA uses the J2EE Connector Architecture deployment descriptor, called **ra.xml**, to define its operational parameters. The deployment descriptor is defined by Sun Microsystems in the J2EE Connector Architecture 1.0 specification. It describes the Resource Adapter related attributes, types, and deployment properties, using a standard Document Type Definition (DTD).

To edit the ISRA deployment descriptor:

1. Remove all files from **ISRATemp** directory and copy **ISRA.rar** in it. Change directory to ISRATemp.
2. In the **ISRATemp** directory, run the command `jar –xvf ISRA.rar.` This command will cause the **ISRA.rar** file to extract in the current directory.
3. Select the **ra.xml** file in the META-INF folder and edit the **ra.xml** file in the favorite text editor. The configurable properties that may be set (modified) in **ra.xml** are:
   - DomainName
   - OrganizationName
   - LogFileName
   - LoggingLevel
   - LoggingMode
   - LogFileSize
   - PageBufferSize

- CacheRefreshInterval
- LdapImplClassName
- LdapImplClassString
- JmsConnectionFactory
- JmsQueueName
- PortNumber
- MachineName
- AppServerInitialContext
- EnableLoggingFileName
- CacheUser/CacheUserPassword
- DeploymentInstance

For more details, refer Configurable ra.xml Entities, Changing ISRA Specific Parameters for LDAP and Configuring ISRA Parameters for Performance Statistics.

Note	It is mandatory to configure DomainName and OrganizationName properties, as the ISRA needs these properties to access the IS. The other properties are optional. DomainName and OrganizationName are the second and third part of the three-part IS library name (for example, DefaultIMS:FileNetIS:FileNet).

4. After making the modifications, save the **ra.xml** file in the same folder.
5. To reconstruct the **ISRA.rar** file enter the command from ISRATemp directory `jar –cvf ISRA.rar *`. This command will create **ISRA.rar** file with modified **ra.xml** bundled into it.

Changing ISRA Specific Parameters

Configurable ra.xml Entities

The configurable properties to be set (modified) in **ra.xml** are:

- DomainName
- OrganizationName
- LogFileName
- LoggingLevel
- LoggingMode

- LogFileSize
- PageBufferSize
- CacheRefreshInterval
- CacheUser/CacheUserPassword
- DeploymentInstance
- PCHLogging
- AllowAnonymousUser
- RPCLogging

DomainName

This is the domain name of the IS server. The default value of DomainName is FileNetIS. It should be set according to the operational environment. Change this property to the domain name of your IS.

OrganizationName

This is the FileNet IS organization name. The default value for OrganizationName is FileNet. It should be changed according to the operational environment.

LogFileName

The LogFileName is a string containing the name and path of the log file. The default Value of LogFileName is ISRA.log. A complete or relative path can be provided to create the log file at a specific location on disk.

LoggingLevel

This is an integer representing the amount of log information to be generated. The valid values are:

Logging Level	Description
0	Only Error and Warning messages will be logged by ISRA
1	Informative messages will also be logged by ISRA
2	Prints debug message in the log

The default value of LoggingLevel is 0. It can be modified to other valid Logging Levels. It is recommended to keep the logging level to 0. LoggingLevel can be increased if a problem is encountered while accessing ISRA through the application.

LoggingMode

This is an integer representing the logging mode. The valid values are:

Logging Mode	Description
0	No Logging
1	Only console logging
2	Only file logging
3	Both console logging and file logging

The default Value of LoggingMode is 3. It can be changed to other valid values according to the operational environment.

LogFileSize

This is an integer representing the maximum size of the log file in Megabytes (MB). When the size of the file reaches this maximum limit, the log file is renamed, and a new file is created with the same name. For example, **ISRA.log** is renamed to **ISRA.log_1**, and a new file **ISRA.log** is created. The default value of LogFileSize is 5MB.

PageBufferSize

This is an integer value specified in kilobytes (KB). PageBufferSize specifies the chunk size that ISRA will use to transfer page data to and from IS. The default value is 64 KB. Specifying a higher value will require more memory for the Application Server process, and a low PageBufferSize will mean more trips to IS. The value should be set to an average page size on the target IS.

CacheRefreshInterval

This is an integer value specified in minutes. ISRA stores meta-data information like Document class, Indices and menu details etc., in a local cache for faster retrieval. ISRA refreshes the cache information based on the CacheRefreshInterval value. The default value is 30 minutes.

CacheUser/CacheUserPassword

This is the name of the user that will be used to configure ISRA Cache. If there is no value set for this parameter then ISRA will use the name and password of the first user who logs into IS through ISRA to build its Cache.

Note The CacheUser name has to be either empty or a valid IS user name otherwise access to the IS through ISRA will fail.

DeploymentInstance

This is the instance number of ISRA that is being deployed. It is a user defined number between 1 and 10. The default value for this parameter is 1 when none is specified. The maximum is 10, which means that 10 different instances of ISRA can be deployed on a single machine.

Each deployment/JNDI of ISRA on the same Web/Application server requires its own instance number. For example, you have 2 ISRA applications deployed on the same Web/Application server. Each deployment would require its own instance number and JNDI name. This number is used on the IS server to differentiate between multiple connections from the same IP address of the Web/Application server.

PCHLogging

This is a String parameter to enable/disable PCH logging in ISRA. The default value for this is disabled**.**

AllowAnonymousUser

It's a Boolean value to allow Anonymous user logon through LDAP, when blank password is passed from user/client. The default value of this parameter is false.

RPCLogging

This is an integer representing the RPC logging level. The valid values are:

RPCLogging	Description
0	Exceptions and Warnings
1	Info
2	Debug Level

Click **RPCLogging**. The default Value of RPCLogging is 1. It can be changed to other valid values according to the operational environment.

Configuring WebLogic-Specific Entities

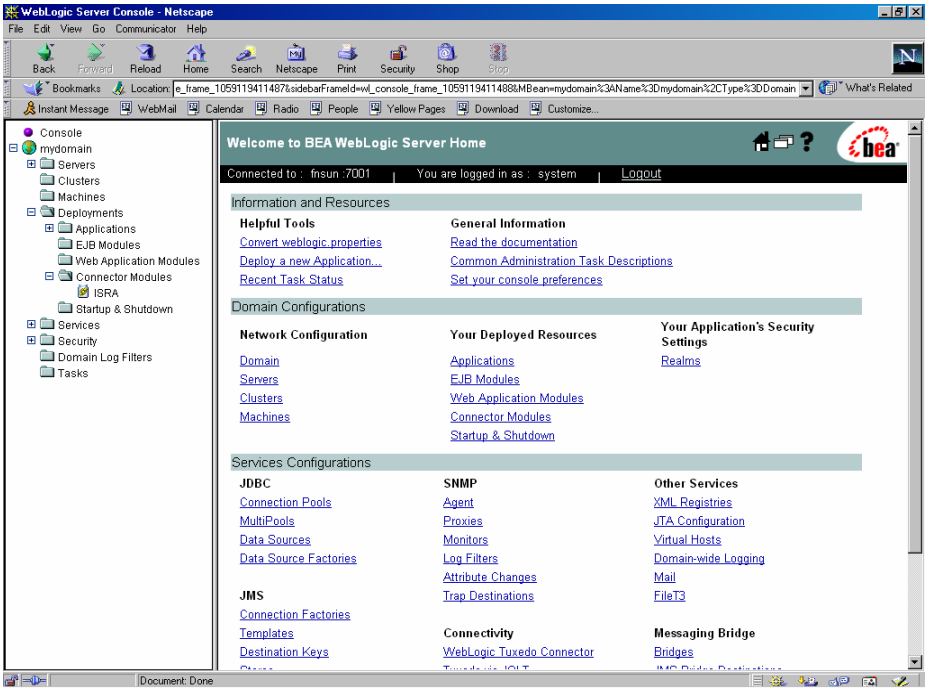
Once the configurable properties are set for ISRA, parameters specific to the WebLogic Application Server, need to be configured. The configurable properties for a Connector in WebLogic are:

- Initial Capacity
- Max Capacity
- Capacity Increment
- Shrinking Enabled
- Shrink Frequency Seconds

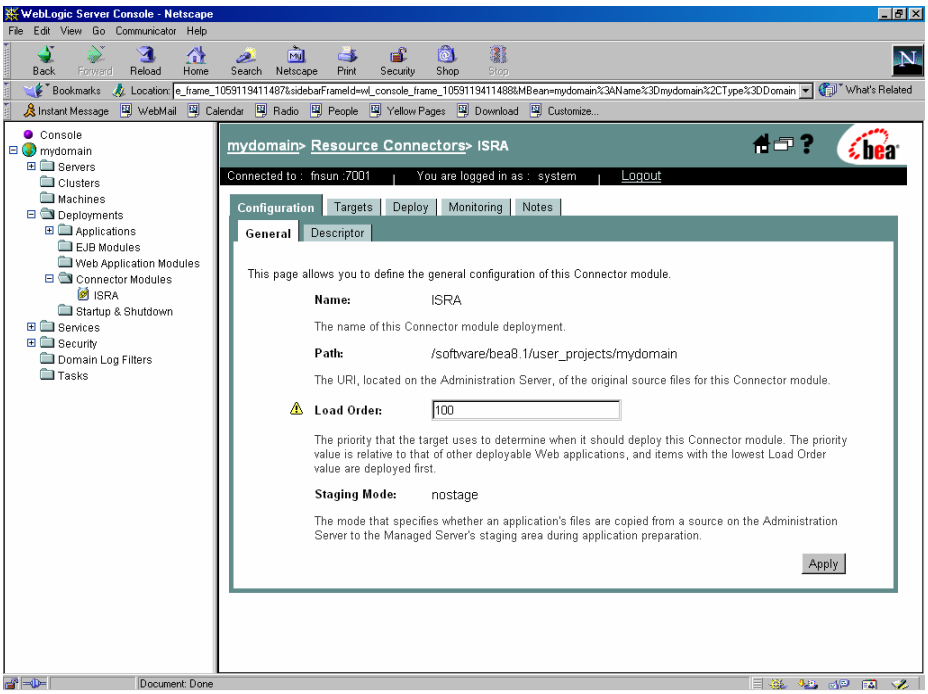
- Highest Num Unavailable
- Highest Num Waiters
- Inactive Connection Timeout Seconds
- Connection Reserve Timeout Seconds
- Test Frequency Seconds
- Connection Creation Retry Frequency Seconds

To configure Weblogic parameters:

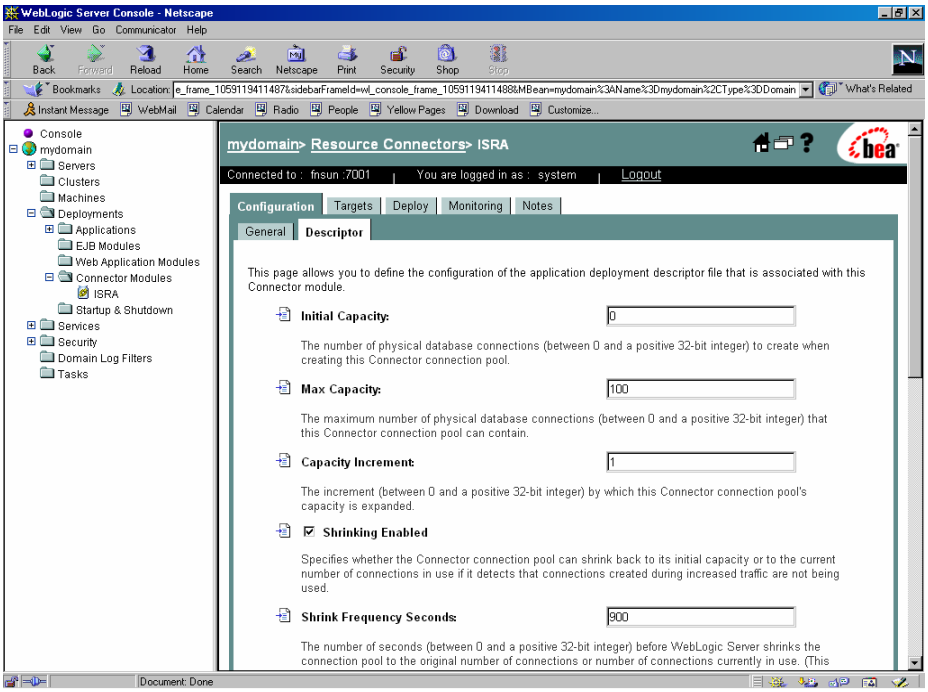
1. Navigate to **Deployments -> Connector Modules**. The following screen appears:



2. Under **Connector Modules,** click **ISRA**. The following screen appears:



3. Under the **Configuration** tab, click **Descriptor**. The following screen appears:



A description of each attribute is given below:

- **Initial Capacity**: Defines the initial number of Managed Connections, which WebLogic Server attempts to obtain on creating a ConnectionFactory. Default value is 0. It is suggested to keep the default value unless user wants to configure Container managed sign-on on this ConnectionFactory.

- **Max Capacity**: Represents the maximum number of Managed Connections that can be created by the ManagedConnectionFactory. After this number is reached, no new connections are created and the requester waits for the ConnectionTimeout or a `ResourceAllocationException` thrown by WebLogic. Maximum Connections must be greater than or equal to Minimum Connections.
- **Capacity Increment**: Represents maximum number of additional Managed Connections that WebLogic Server attempts to obtain during resizing of the maintained connection pool
- **Shrinking Enabled**: Specifies whether the connection pool should reclaim unused managed connections to control system resources
- **Shrink Frequency Seconds**: Specifies the amount of time the connection pool Manager will wait between attempts to reclaim unused managed connections
- **Highest Num Unavailable**: Specifies the maximum number of connection requests that can concurrently block threads while waiting to reserve a connection from the connection pool
- **Highest Num Waiters**: Specifies the maximum number of connections in the connection pool that can be made unavailable for use by an application
- **Inactive Connection Timeout Seconds**: Specifies the amount of time the connection pool Manager will wait before attempting to reclaim unused managed connections.
- **Connection Reserve Timeout Seconds**: Specifies the number of seconds after which a call to reserve a connection from the pool will timeout
- **Test Frequency Seconds**: Specifies the number of seconds between two consecutive WebLogic Server tests for unused database connections. Connections that fail the test are closed and reopened to re-establish a valid physical database connection.
- **Connection Creation Retry Frequency Seconds:** Specifies the number of seconds between two consecutive trials of the connection pool to establish connections to the database

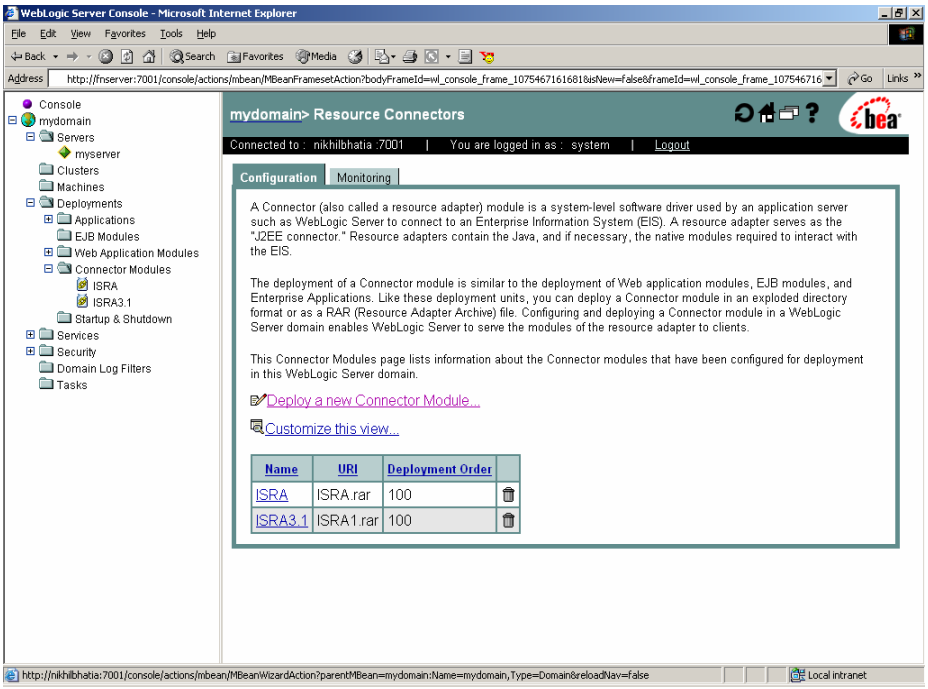
4. Apply the changes, explained above for the changes to take effect.

Note	Include the client_helper.jar file in the CLASSPATH of the WebLogic Server before accessing ISRA from an application client.

Configuring Multiple IS Servers with ISRA

To configure ISRA for accessing multiple IS servers:

1. Deploy a new ISRA instance for each IS that user wants to connect. Before deploying the second (and subsequent) ISRA, rename the ISRA.rar file. The new ISRA will overwrite the previously deployed ISRA configuration settings, if the .rar file is not renamed.
2. Ensure that the renamed **ISRA.rar** has the .rar file extension.



3. Configure the new ISRA and enter a DomainName and OrganizationName before deployment, for connecting to the target IS.

4
Configuring and Deploying ISRA Sample Application

The ISRA Sample Application is packaged as an Enterprise Application Archive File (**ISRASample.ear**). It consists of:

- A Web module (**SampleWEB.war**)
- Deployment Descriptor (**Web.xml**)

The ISRA Sample Application can be deployed on a J2EE 1.3 compliant Application Server. This chapter illustrates the deployment and configuration of the Sample Application on BEA WebLogic 8.1 platform using the WebLogic Administration Console.

Note ISRA product media contains FileNet Image Viewer, which can be used to display the TIFF, JPEG, BMP, and other supported file formats on a Java-enabled browser.

This sample application is intended solely for illustrative purposes, and it should not be expected to perform useful work, or be used for production deployment. This sample application is to be used strictly as reference material.

Configuring Sample Application

This section describes how to deploy the Sample Application on BEA WebLogic 8.1 Server to access ISRA in a managed environment. It is assumed that ISRA is deployed and configured for the target IS.

1. Extract **ISRASampleWEB.war** from **ISRASample.ear.**
2. Extract **web.xml** from **ISRASampleWEB.war**
3. Change param-value for "LIBRARY_NAMES" to

```
<param-value>ISCF</param-value>
```

Note The LIBRARY_NAMES property is mandatory and it should be the same as the **JNDI Binding Path** specified for the configured ISRA ConnectionFactory.

LIBRARY_NAMES is the name of the ConnectionFactory. Provide the JNDI name of the ISRA Connection Factory that the ISRA Sample Application uses to access IS resources.

The default value of LIBRARY_NAMES is ISCF. It can be changed according to the operational environment. Multiple Connection Factory names can be specified by using comma (,) as a separator. For example: ISCF, ISCF2.

4. To enable extended annotation functionality modify the following parameters in **web.xml**:

   i. Change env-entry-value for "DOCCLASSNAME" to the document class configured in the IS for digital signatures.

   ```
   <env-entry-value>digDocClass</env-entry-value>
   ```

   ii. Change env-entry-value for "MAXROWS" to the number of records to be fetched from the given document class.

   ```
   <env-entry-value>200</env-entry-value>
   ```

5. To enable Remote Printing functionality modify the following parameters in **web.xml**:

   i. Change env-entry-value for "USEPRINTVIEWOPTION" to either Yes or No. This value will determine whether to honor the print/view preference set in the **web.xml** or to take the value returned by ViewOne. Default value is No.

   ```
   <env-entry-value>No</env-entry-value>
   ```

   ii. Change env-entry-value for "PRINTVIEWOPTION" to either View Only =1, Print Only =2, Print/View =3. This value indicates the value of Print/View. The default value is 3.

   ```
   <env-entry-value>3</env-entry-value>
   ```

Note If the PRINTVIEWOPTION is set to 3 (default) then the sticky note would be saved as a normal sticky note. If PRINTVIEWOPTION value is specified as 1 or 2 then the annotations will be saved as an extended annotation (***Extended annotations*** *are non-standard annotations which are saved with a class name parameter (F_CLASSNAME) of "Proprietary", a class id property (CLASS_ID) of {A91E5DF2-6B7B-11D1-B6D7-00609705F027} and a subclass name property (F_SUBCLASS) that describes the annotation*).

The value of PRINTVIEWOPTION would be honored for each sticky note individually, and not for all the sticky notes on a document as a whole.

Thus, the setting for PRINTVIEWOPTION would be processed for either a new annotation being added or an existing annotation being modified.

---

6. Update **web.xml** in **ISRASampleWEB.war**

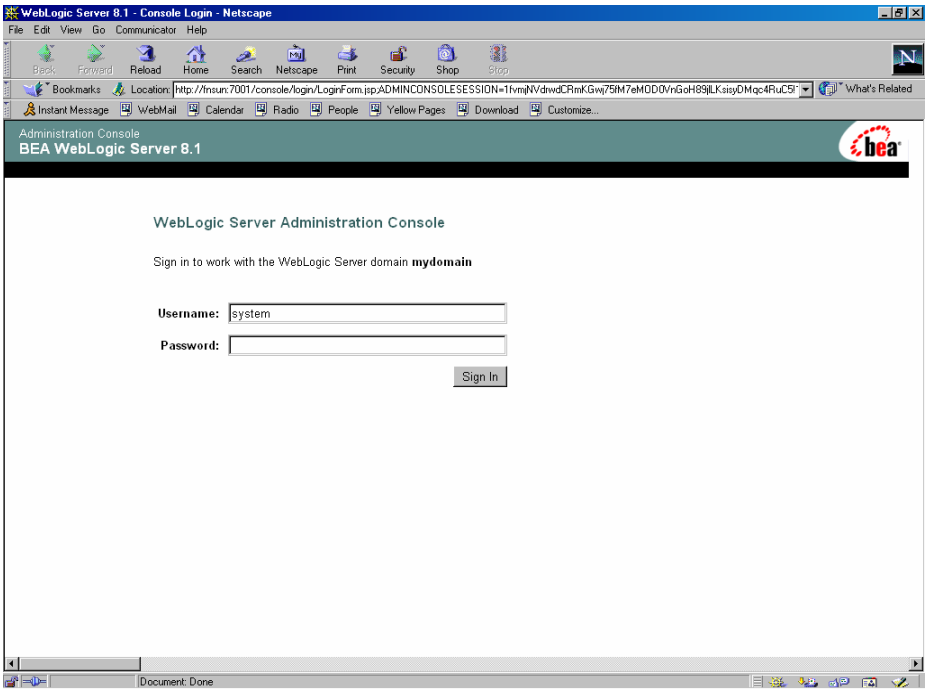
7. Update **ISRASampleWEB.war** in **ISRASample.ear**

Deploying the Sample Application

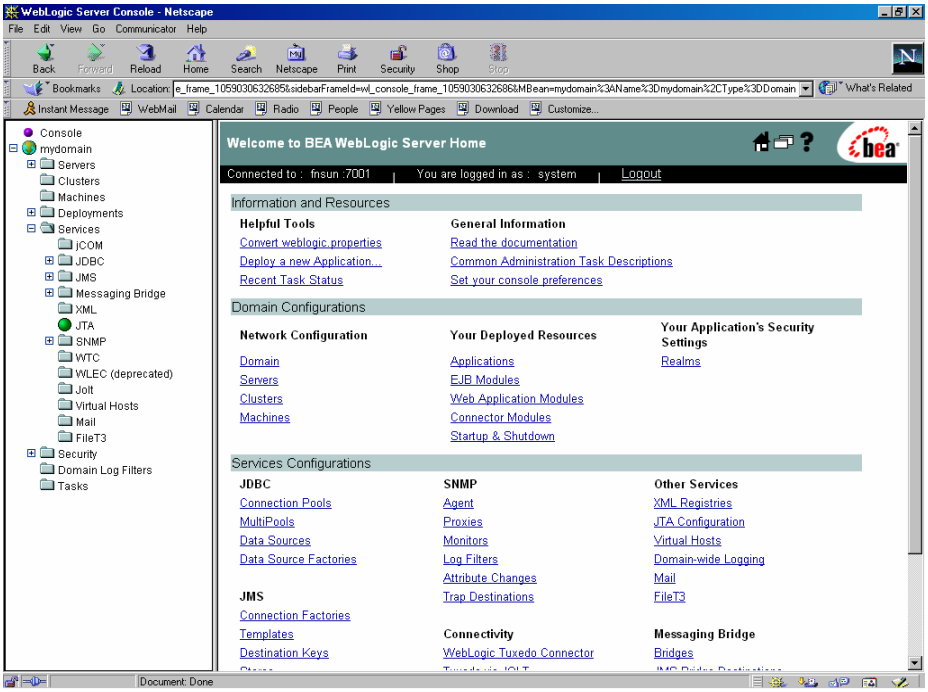
This section describes how to deploy the Sample Application on a WebLogic Server to access ISRA in a managed environment. It is assumed that ISRA is deployed and configured for the target IS.

Before deploying the Sample Application through the WebLogic Server Administration Console, ensure WebLogic Administration Server is running, else, start the Administration server as explained in the Deploying ISRA section.

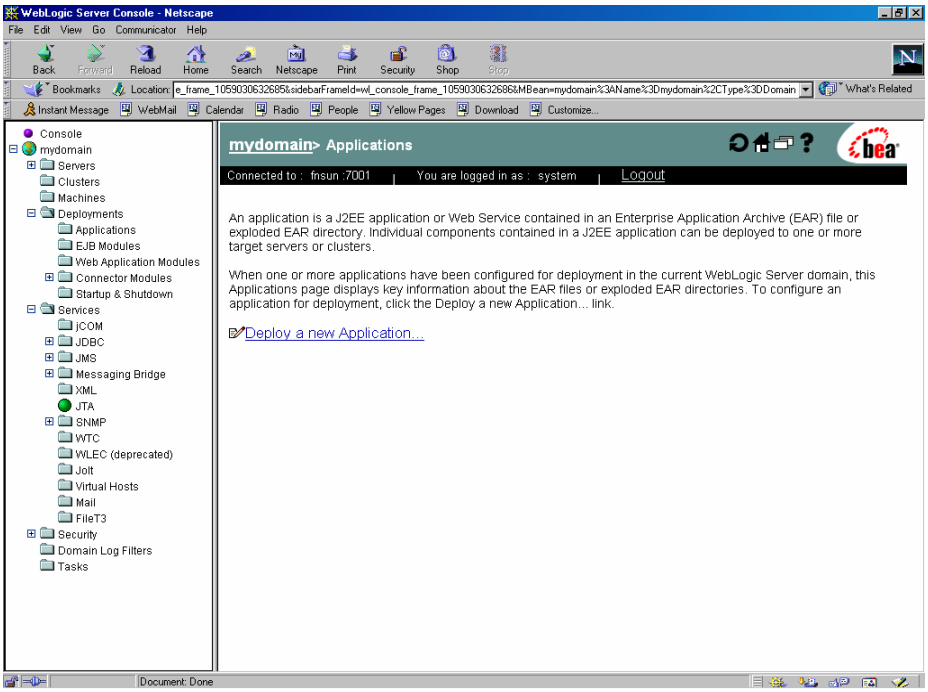
1. Start the administrative console. Open a browser window and enter the WebLogic admin console URL http://hostname:portnumber/console.



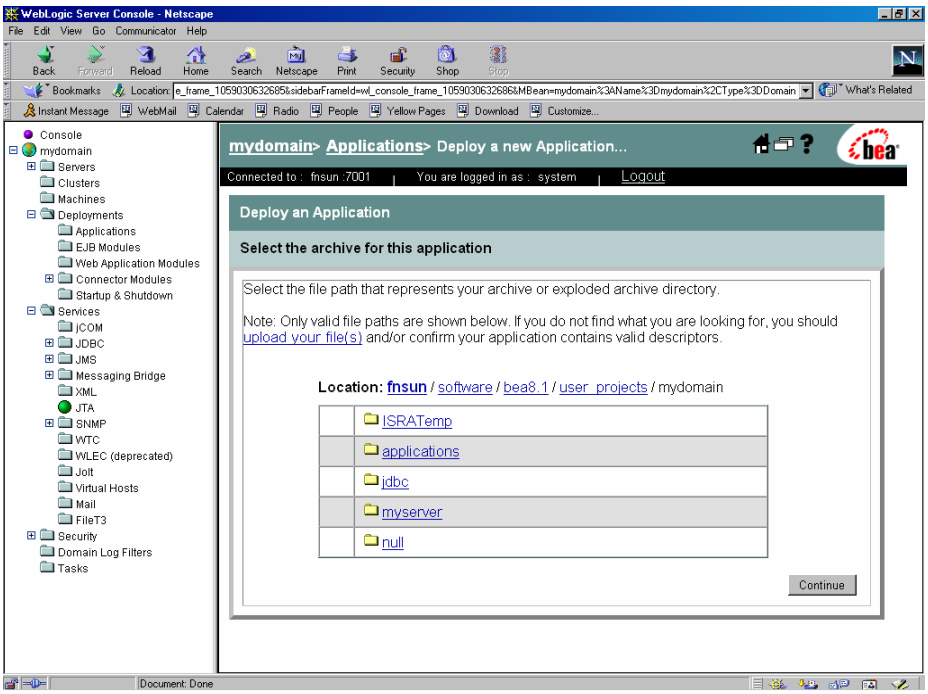
2. The WebLogic admin console sign on screen appears. Enter the WebLogic admin **Username** and **Password**. Click **Sign In** to access the WebLogic admin console.



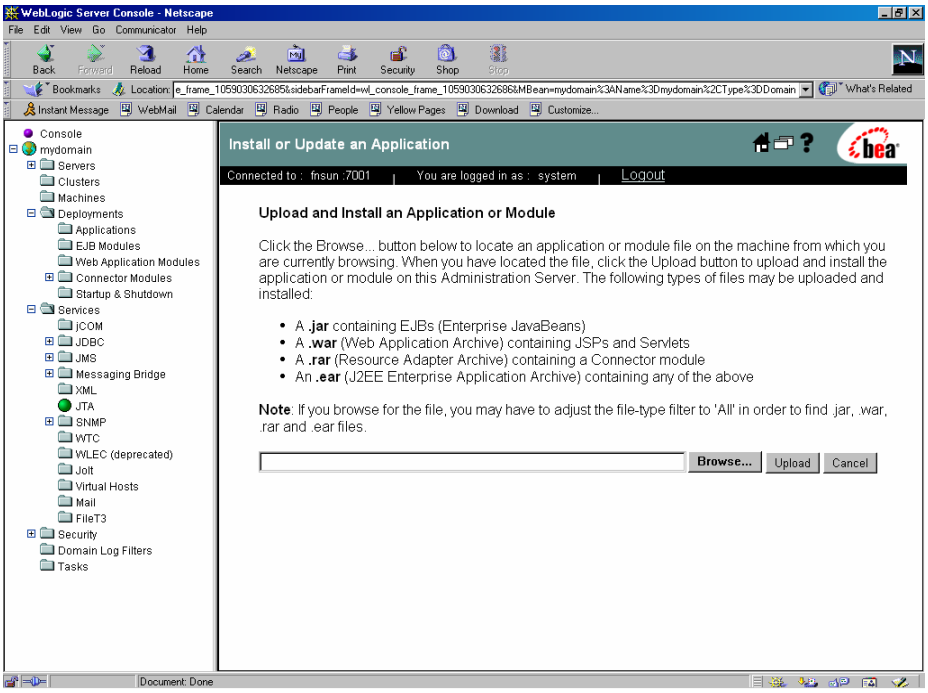
3. Navigate to **Deployments -> Applications**. The following screen appears:



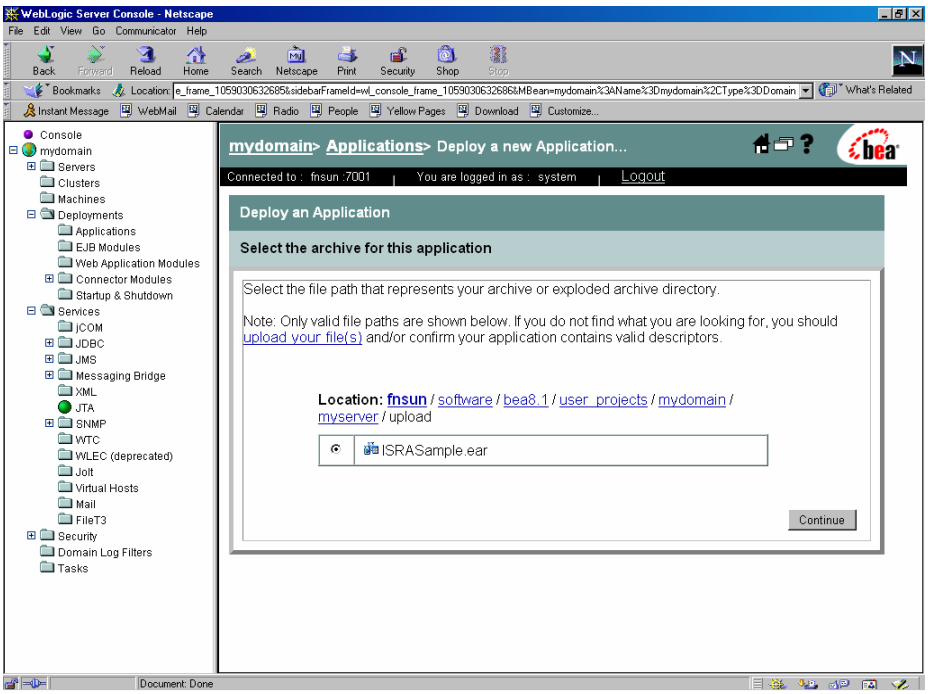
4. Click **Deploy a new Application**. The following screen appears:



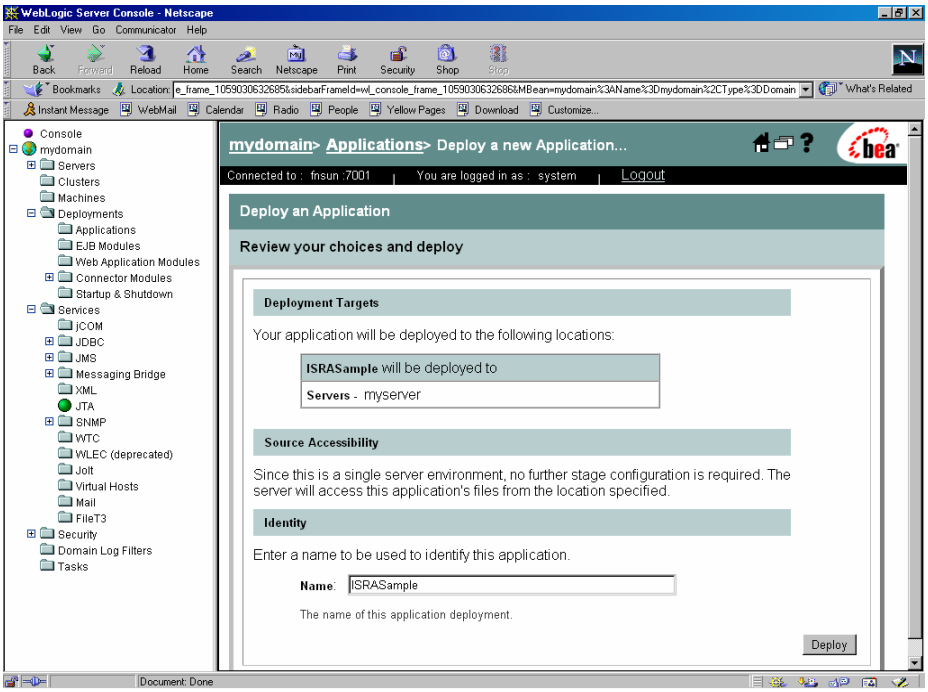
5. Click **upload your file(s)** link. The following screen appears:



6. Click **Browse** to select the **ISRASample.ear**. The **ISRASample.ear** file is located in **sample** subdirectory of ISRA installation directory. For example if user has installed ISRA in `C:\fnsw\ISRA` (`/fnsw/ISRA` on UNIX/Linux), the **ISRASample.ear** can be found in `C:\fnsw\ISRA\sample` (`/fnsw/ISRA/sample` on UNIX/Linux) directory. Click **Upload** to upload the sample .ear file.

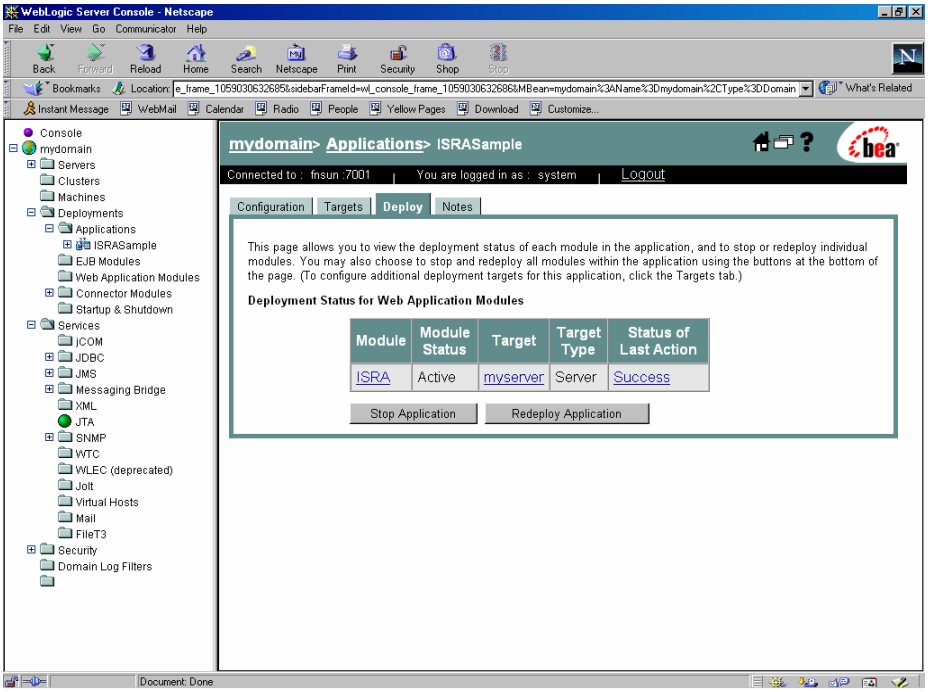


7. Select the radio box corresponding to **ISRASample.ear** file, and click **Continue**.



The screen will show the Target Application Server on which the ISRA Sample Application will be deployed, in the WebLogic administrative domain.

8. Click **Deploy** to finish the deployment of the ISRA sample application.



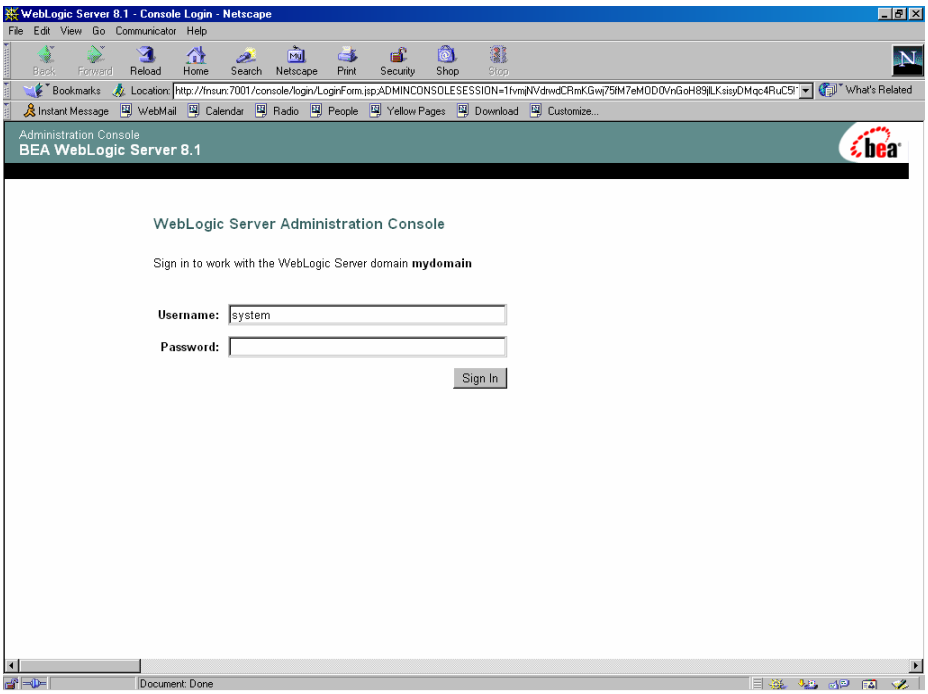
Deployment of the FileNet Image Viewer

This section describes how to deploy the FileNet Image Viewer. This viewer is used by the ISRA Sample Application to display documents of specific mime types (TIFF, JPEG and BMP). Skip this section, if you do not want the FileNet Image Viewer configured with the ISRA Sample application.

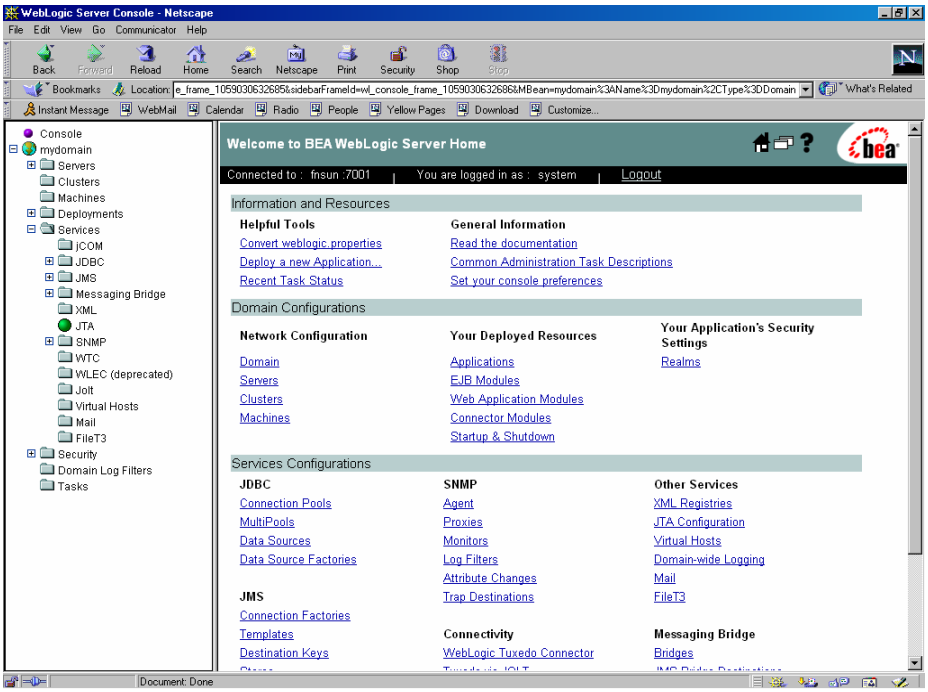
Before deploying FileNet Image Viewer application through the WebLogic Server Administration Console, ensure that the WebLogic Administration Server is running, else, start the Administration as explained in the beginning of Deploying ISRA section.

To deploy FileNet Image Viewer:

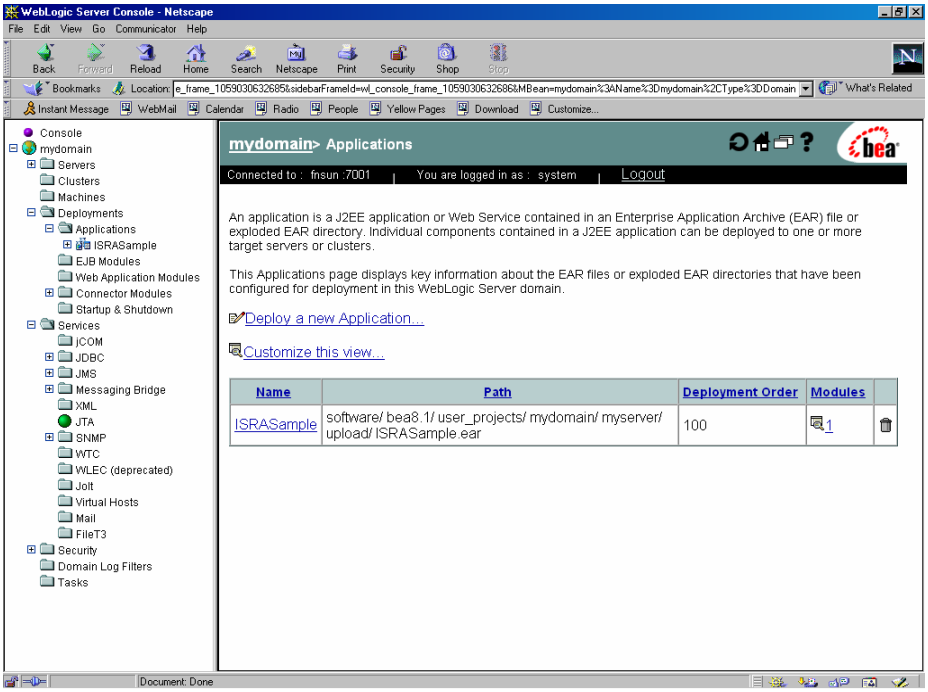
1. Start the administrative console. Open a browser window and enter the WebLogic admin console URL http://hostname:portnumber/console.



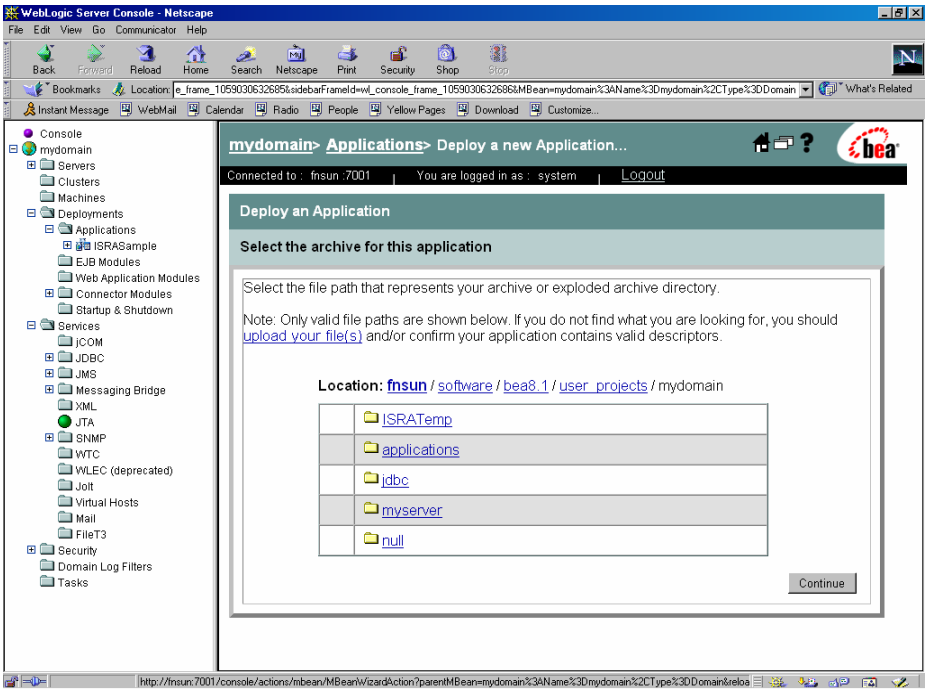
2. Enter the WebLogic admin **Username** and **Password,** and click **Sign In** to access the WebLogic admin console.



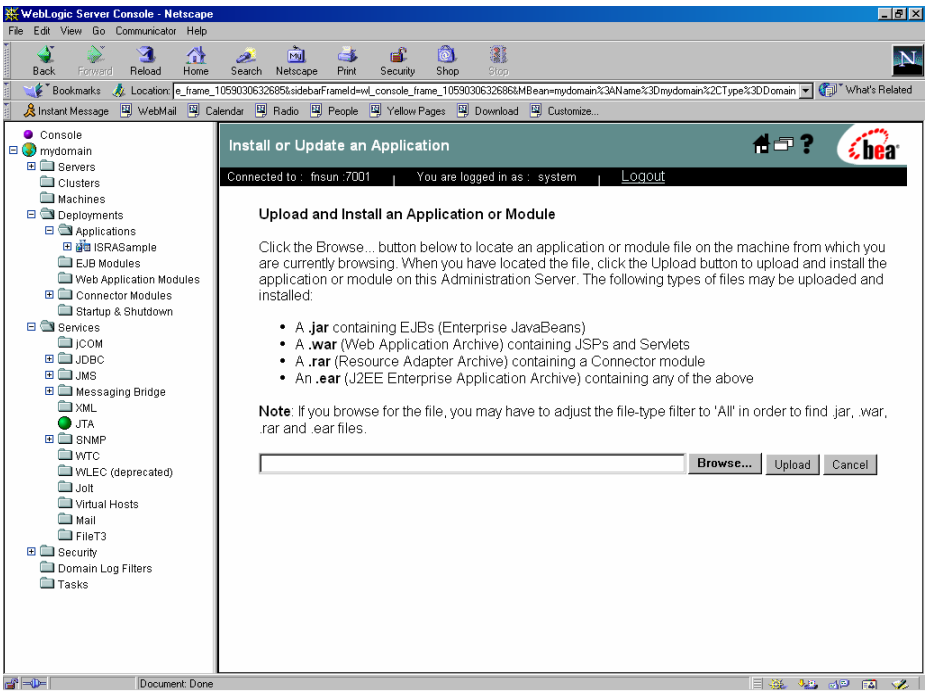
3. Navigate to **Deployments -> Applications**. The following screen appears:



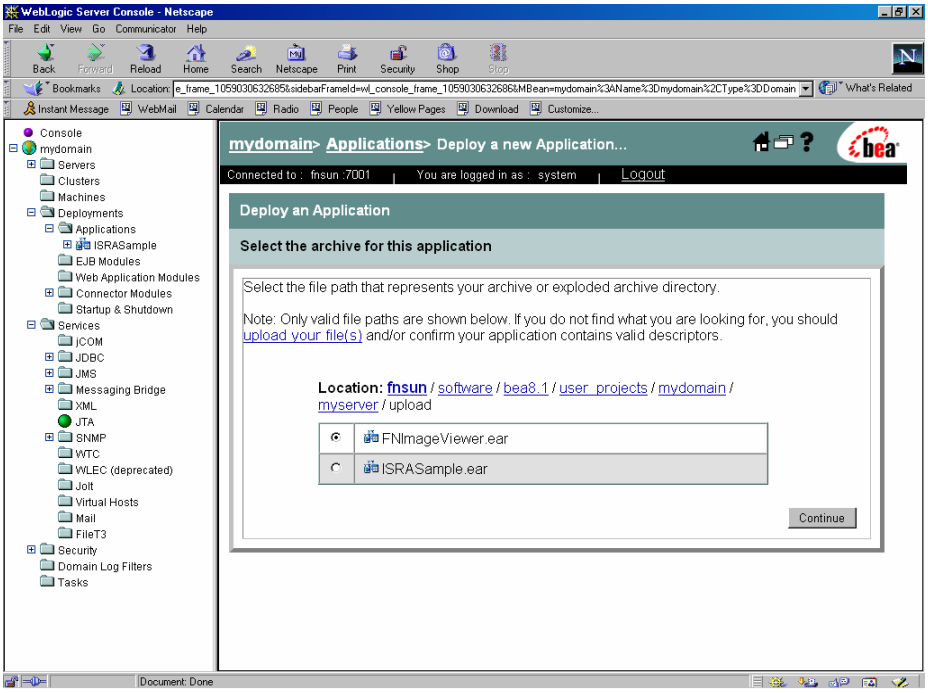
4. Click **Deploy a new Application**. The following screen appears:



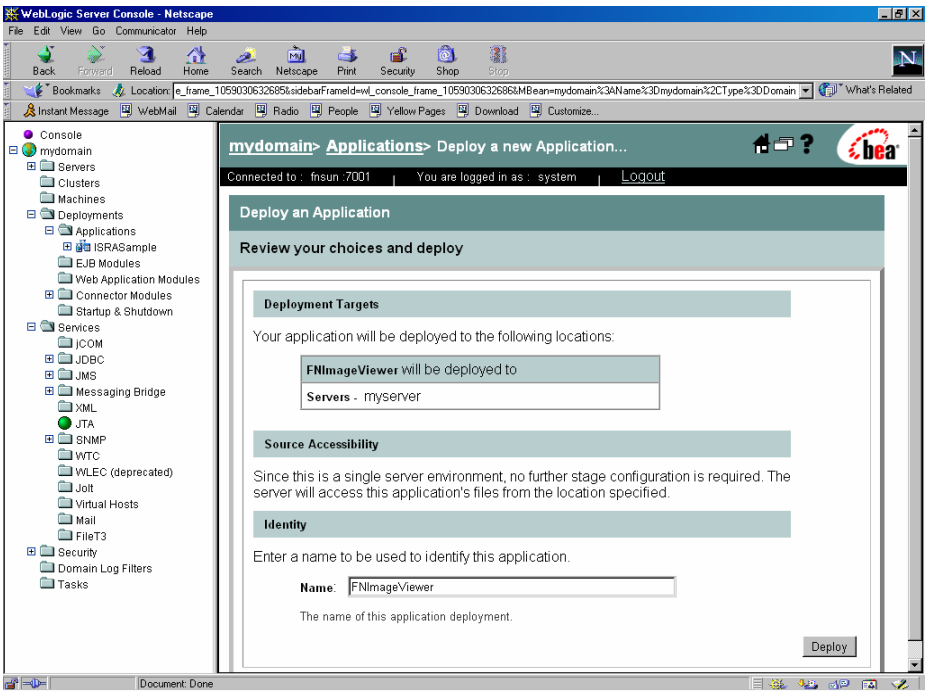
5. Click **upload your file(s)** link. The following screen appears:



6. Click **Browse** to locate the **FNImageViewer.ear,** to deploy the FileNet Image Viewer in the target environment. After selecting **FNImageViewer.ear** file, click **Upload**. The following screen appears:

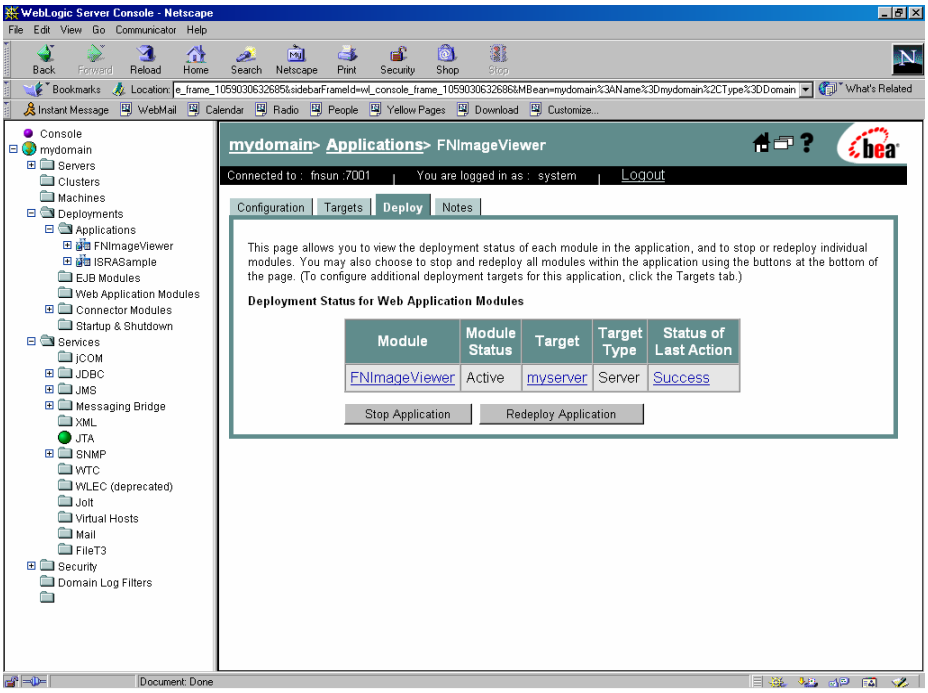


7. Click the radio button corresponding to **FNImageViewer . ear** and click **Continue**. The following screen appears:



Note Ensure that **FNImageViewer.ear** application is installed on the same Application Server where the Sample Application is installed.

8. Click **Deploy**, to deploy the FileNet Image Viewer.

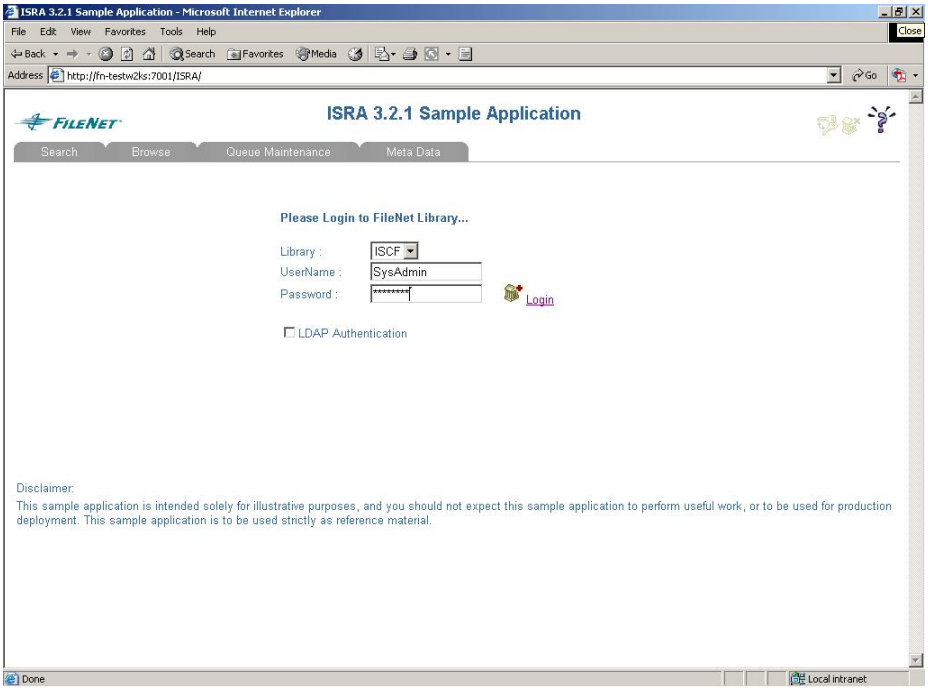


Testing Sample Application Deployment

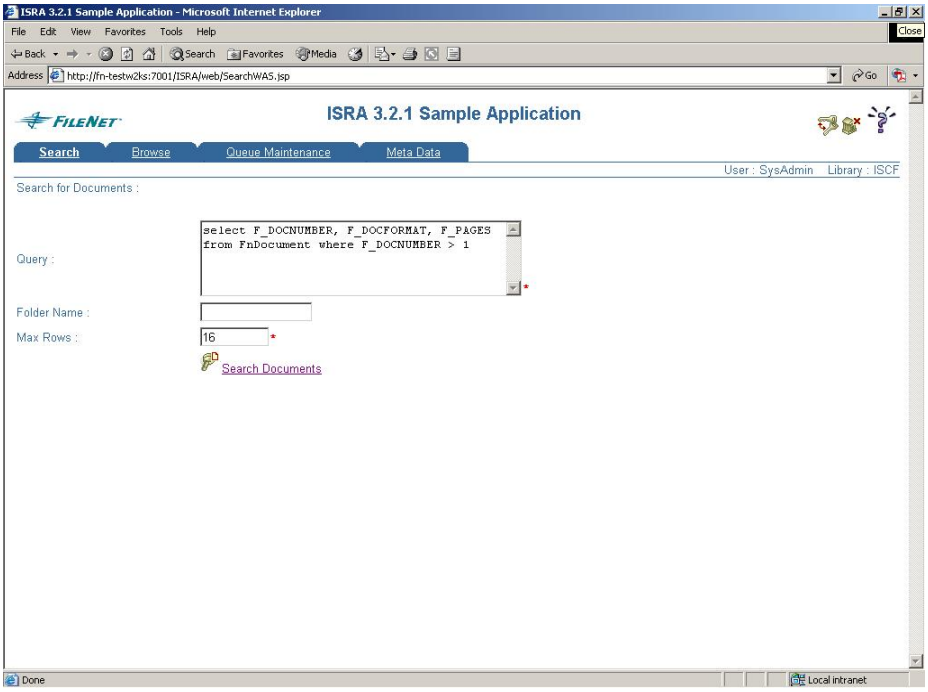
After the ISRA Sample Application is started, the steps to verify the deployment and access the ISRA Sample Application are:

1. Open a Web browser and enter the URL http://<server:port>/context_root.

   The Web application context_root is case sensitive. On a Weblogic Server, the default port number is 7001. The default context_root of the Sample Application is ISRA.



2. Enter valid **Username** and **Password** for the configured IS (check configured ConnectionFactory for IS details) and click **Logon**.



3. Click **Help** icon on the Sample Application page for details on the interaction parameters and options.

5
LDAP Configuration

In addition to direct IS logging, ISRA 3.2.1 also supports LDAP Authentication by third party Servers.

It is necessary to map users present on the LDAP Server to the IS, before using LDAP Authentication.

Note The installation of LDAP Server and creation of users on the LDAP machine are out of the scope of this document.

FileNet provides two utilities - ldap_export and ldap_import, to map existing users on the LDAP Server to the IS. These utilities are part of the IS package and must be executed on the machines running the LDAP Server and the IS.

The ldap_export utility is used to export usernames on the LDAP Server to an xml file. While, the ldap_import utility imports usernames that have been mapped to the xml file and creates corresponding users on the IS.

It is mandatory that the ldap_import algorithm and the xml file be present on the same machines, where IS exists. The ldap_import algorithm uses a hashing algorithm to generate user passwords for the IS.

Mapping Existing LDAP Server Users to IS

To configure user IDs in a FileNet IS library:

1. Create user entries on the LDAP server. The user attribute “uid” will be used to create a user on IS. The remaining attributes (including “password”) can be assigned any value.
2. Use the **LDAP_EXP.exe** utility to export the user entries created into an XML file.
3. LDAP_EXP program has the following parameters options:

Option	Description
s <server>	LDAP server name or IP address, required value.
p <port>	LDAP port number, optional value, 389 is default.
d <binddn>	LDAP administrator bind domain name (DN), required value.
w <bindpw>	LDAP administrator bind password, required value.
t <ldap server type>	Required value for server type: msft – Microsoft Active Directory sun – Sun One Directory (iPlanet) nov – Novell eDirectory(NDS). ibm – IBM Directory.
b <basedn>	LDAP Base DN, optional value.
g <grouplist filename>	Group list file for input, optional value.
o <XML output filename>	XML output filename, optional value.
l <log filename>	Log Filename to use, optional value.
i	Check for special characters on <id> tags only
e	Remove all escape characters – '\' .
k	Use paged results. Windows to AD only
z	Use secure socket connection
x <grouplist filename>	Group list file name for output, optional value.
v	Verbose log output.
c1 <user object class>	Class type for User, default is 'person'.
c2 <group object class>	Class type for Group, default is 'groupofuniquenames'.
a1 <user attribute>	Attribute to be used for user; default is 'dn'.
a2 <group attribute>	Attribute to be used for group; default is 'dn'
a3 <member attribute>	Attribute to be used for member; default is 'uniqueMember'.

Note User may use /?, -?, /h or -h to generate help.

Example command lines:

- **Sun One directory (iPlanet) server:**

```
ldap_exp -s SunSrvr1 -d "cn=Directory Manager" -w
":/,.++=" -t sun -b "dc=iPlanet, dc=com"
```

- **Microsoft Active Directory (AD) server:**

```
ldap_exp -s Win2KSrvr1 -d
"CN=Administrator,CN=Users,DC=win2ksrvr1,DC=com" -
w
":/,.++=" -t msft -b "dc=win2ksrvr1,dc=com"
```

- **Novell eDirectory(NDS) server:**

```
ldap_exp.exe -s NovSrvr1 -d "cn=Admin, o=server" -
w
":/,.++="-t nov -b "o=wa"
```

- **IBM Directory server:**

```
ldap_exp -s IBMSrvr1 -d "Cn=Administrator" -w
":/,.++=" -t
ibm -b "dc=ibmsrvr1, dc=com"
```

4. Use the **LDAP_IMPORT.exe** for IS libraries to import the user entries from XML file into the specified FileNet IS library.

Parameters:

/?	Help screen
/h<host>[:organization]	IS host or domain name, organization.
/u<id> (used with /p)	Authorized IS user name
/p"<pwd>" (used with /u)	Encrypted IS user password.
/i<file>	XML input file.

For example, to import user entries from XML file:

```
C:\>ldap_import /hIMGSERV:FileNet /ildap_exp.xml
```

Note Options are NOT case sensitive. All the information or error messages are logged to the system log or the file 'ldap_importyyyymmddlog.txt'. If Username and password are not specified in the command, it prompts for username and password.

5. The FileNet users created will have a password generated from the corresponding user IDs.

Changing ISRA Specific Parameters for LDAP

Configurable ra.xml Entities

The configurable properties to be set (modified) in **ra.xml** are:

- LdapImplClassName
- LdapImplClassString

LdapImplClassName

It is the name of the Implementation class for LDAP Authentication. This parameter contains the complete path of the LDAP Implementation class to be entered along with the LDAP Implementation Class Name.

The default value is ‘com.filenet.is.ra.fnis.FN_IS_IPlanetImpl’

In addition, LDAP implementation has been provided for Microsoft Active Directory Server for Windows 2000 and Novell NDS 8.7.3. The value of the property for LDAP implementation for Active Directory is com.filenet.is.ra.fnis.FN_IS_ActiveDirImpl and for Novell NDS 8.7.3 is com.filenet.is.ra.fnis.FN_IS_NovellNDSImpl.

LdapImplClassString

This parameter is a general string that takes in all the LDAP Server specific parameters required for authentication. It takes the following inputs:

- Server Name – Name of the Server/ Machine on which LDAP Server exists.
- Port Number – LDAP Server's port number used for transactions.
- User Path – Directory under which the users are filed in the LDAP Directory Server.

The three parameters must be separated by semicolon and must appear in the order - Server Name, Port Number and User Path. An example of LDAPImplClassString is:

- **For Active Directory**

  filenetserver;389;isra.odc.filenet.com

- **For IPlanet**

  filenetserver;389;uid= user1, ou=ISRA, dc=odc,dc=filenet,dc=com

- **For Novell NDS**

  filenetserver;389;cn=user1, ou= ISRA, o=FileNet

6
Configuring Performance Statistics from ISRA

User can execute an EnablePerformanceLogging interaction to enable or disable the logging of performance statistics of each ISRA interaction. To enable this, configure JMS server, connection factory and JMS queue. The current value of EnablePerformanceLogging interaction will be updated in the file name mentioned by the user while deploying ISRA.

Enabling the performance logging statistics will send the messages to JMS queue, else these messages will not be logged in the JMS queue.

To configure the performance statistics, perform the following:

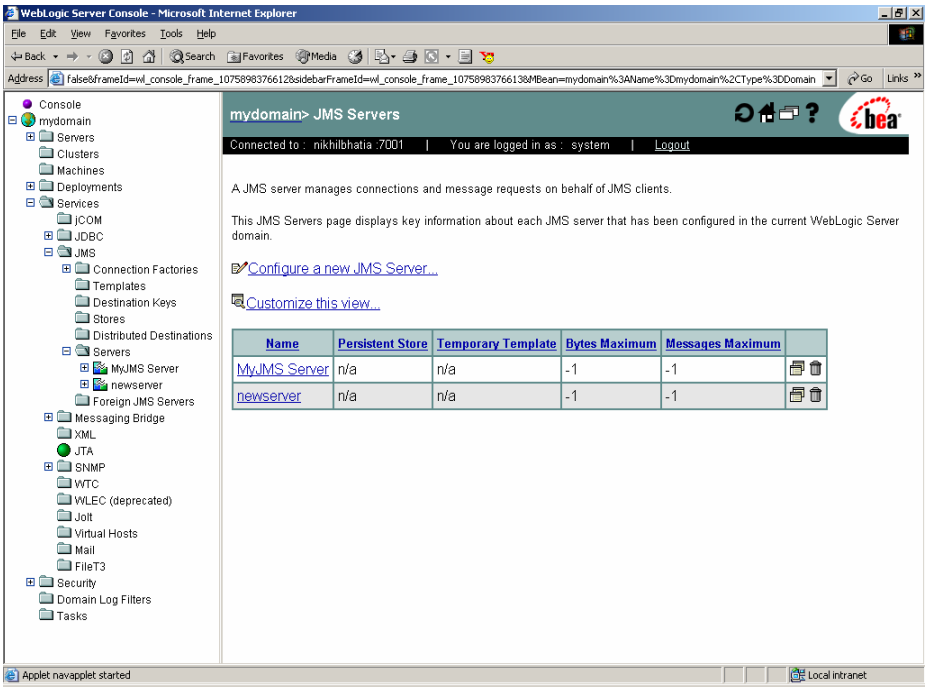
1. Configure a new JMS server
2. Configure a JMS queue
3. Configure JMS connection factory

These are explained in detail in the following sections.

Configuring JMS Server

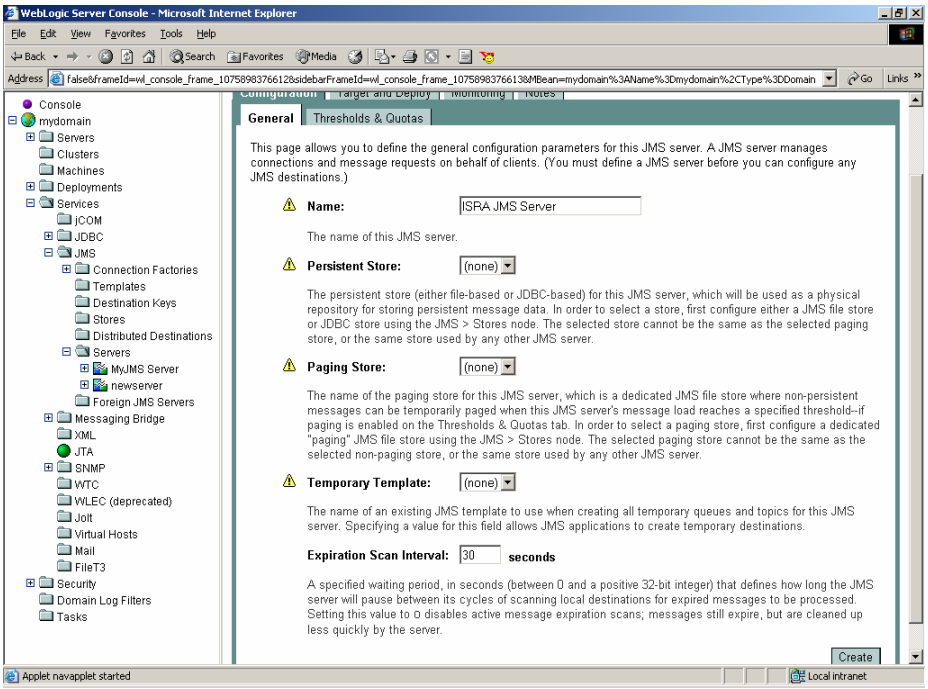
To configure a JMS server:

1. On the left pane of the WebLogic 8.1 console, click **Services→JMS→Servers**. The following screen appears:

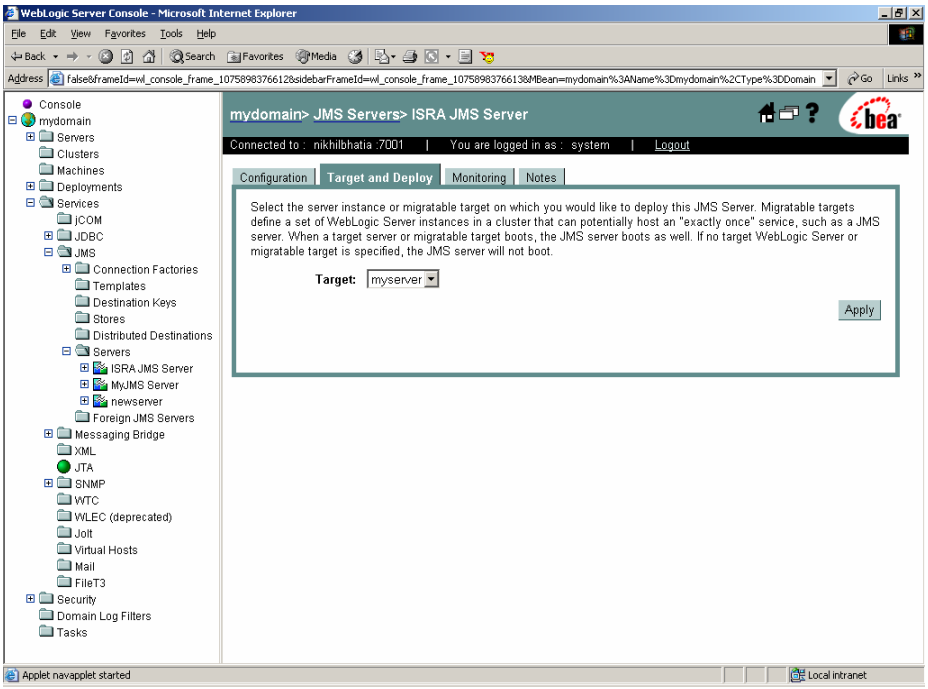


Note User may also use an existing JMS server.

2. Click **Configure a new JMS Server** link**.** The following screen appears:.



3. Type in a name, in the **Name** field, for the new JMS server configured and click **Create**. The following screen appears:

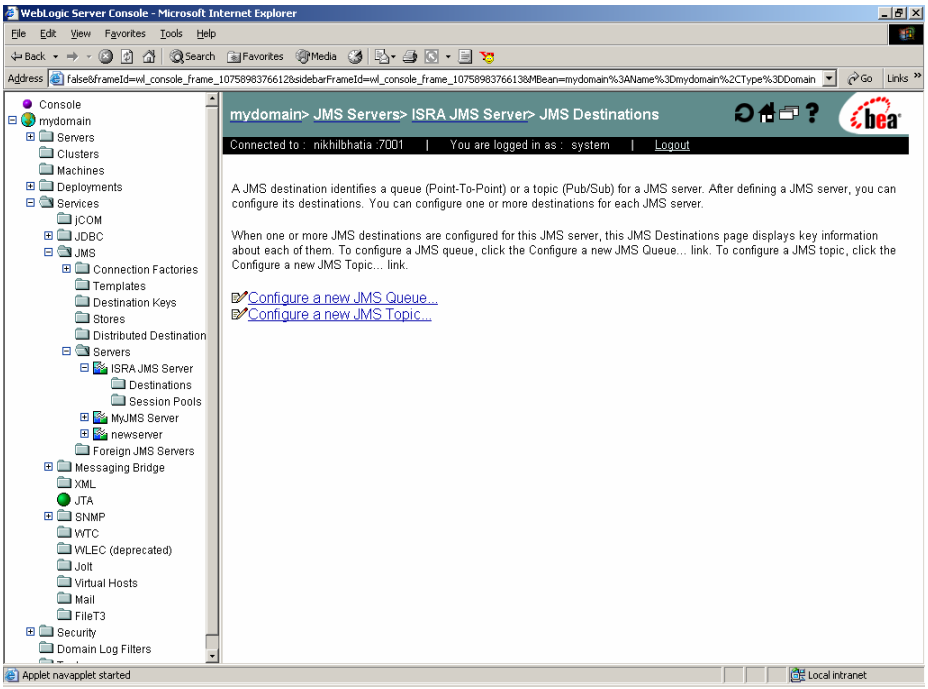


4. Select the target server from the drop down list as seen in the screen shown below. Click **Apply**.

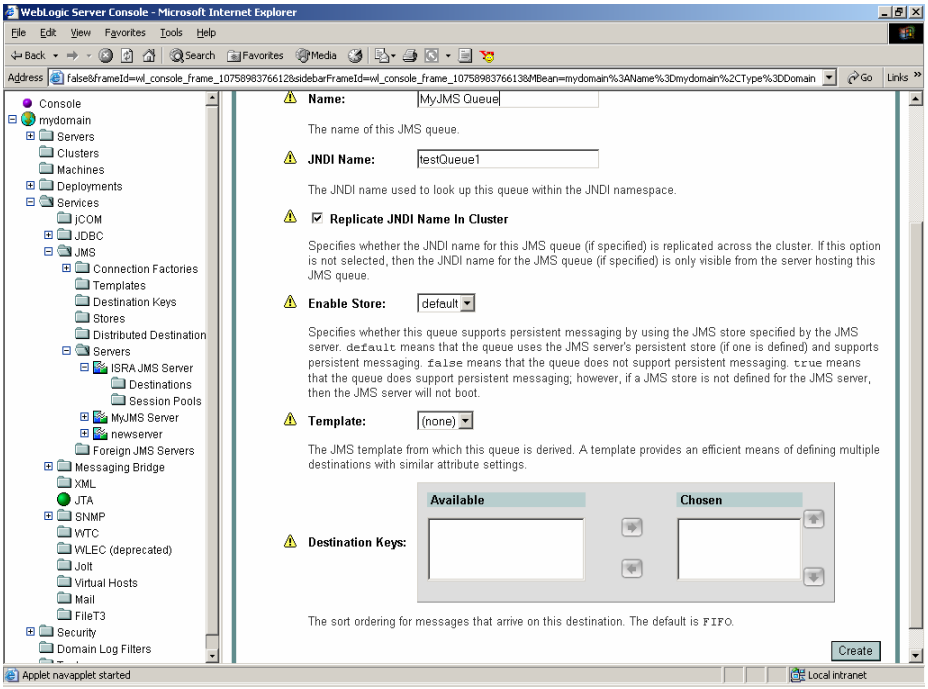
Configure a JMS Queue

To configure a JMS queue:

1. On the WebLogic 8.1 console, navigate to **JMS Servers→ ISRA JMS Server→JMS Destinations**. The following screen appears:



2. Click **Configure a new JMS Queue** link. The following screen appears:



3. Type in the **Name** and **JNDI Name** of the JMS queue. Click **Create**.

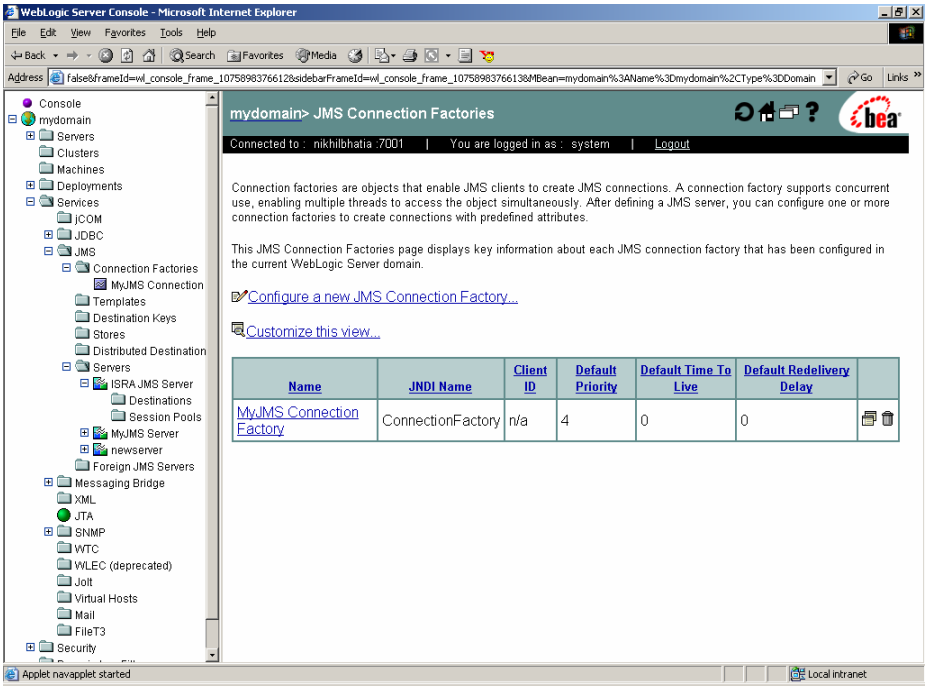
> **Note** The JNDI name of the queue must be the same (also case-sensitive) as in the deployment descriptor (**ra.xml** file).

4. Click **Apply**.

Configure JMS Connection Factory

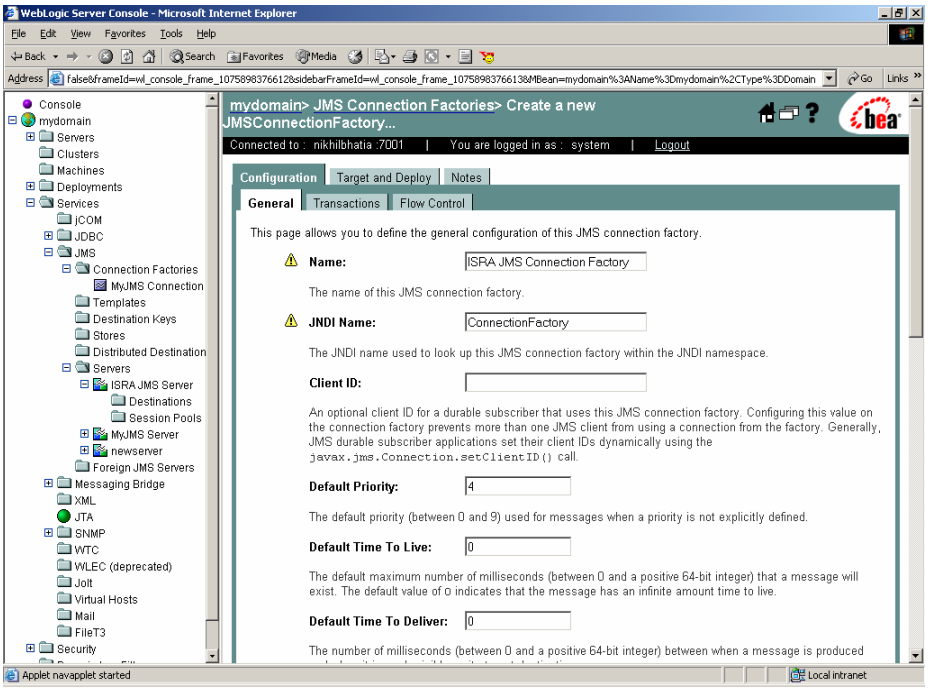
To configure the JMS connection factory:

1. Navigate to **JMS→Connection Factories** on the WebLogic console. The following screen appears:



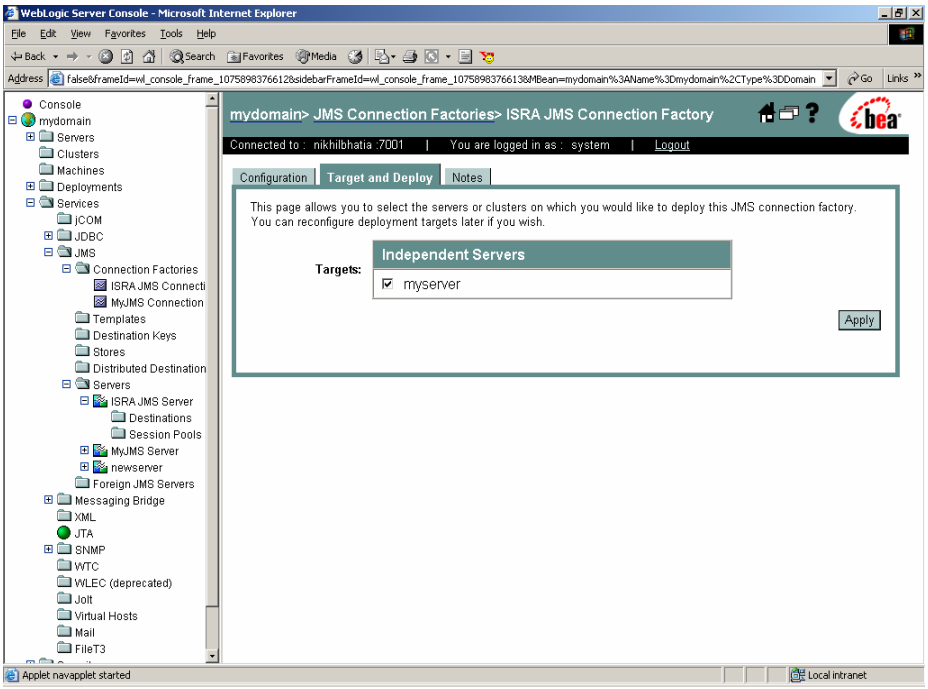
Note The user can also use an existing connection factory.

2. Click **Configure a new JMS Connection Factory** link. The following screen appears:



3. Type in the Connection factory name and JNDI name as shown below and click **Create**.

> **Note** The JNDI name of the connection factory must be the same (also case-sensitive) as mentioned in the **ra.xml** file.



4. Select the target server and click **Apply**.

Configuring ISRA Parameters for Performance Statistics

The following parameters must be configured for EnablePerformanceLogging interaction:

Configuring ra.xml Entities:

JmsConnectionFactory

It is the name of the connection factory configured on the JMS server. The default value is ‘ConnectionFactory’.

JmsQueueName

It is the name of the queue configured on the JMS server. The default value is ‘testQueue’.

PortNumber

It is the port number on which the WebLogic server is running. The default value is 7001.

MachineName

This is the machine name on which the WebLogic server is running. The default value is ‘local host’.

AppServerInitialContext

It is the name of the initial context class for WebLogic server. The default value is ‘Weblogic.jndi.WLInitialContextFactory’.

EnableLoggingFileName

This is the name of the file where the current value of PerformanceLogging will be updated. The default value is ‘enableJMS_ISCF.properties’.

Note This file must be a properties file.

7
UnDeployment

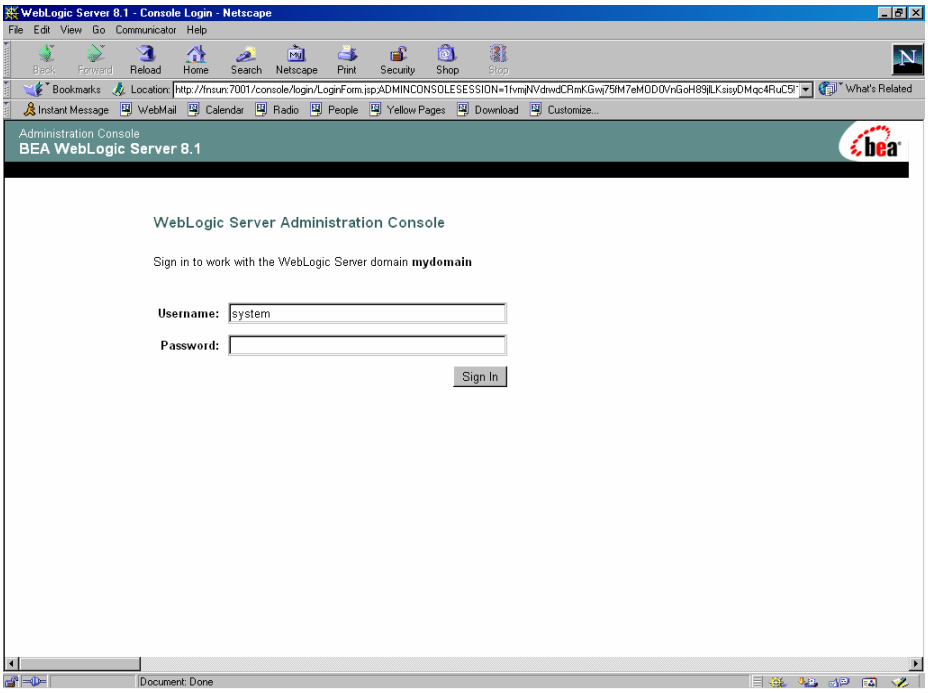
This section describes undeployment procedure to remove the ISRA and the Sample Application from the WebLogic Server.

UnDeployment of ISRA

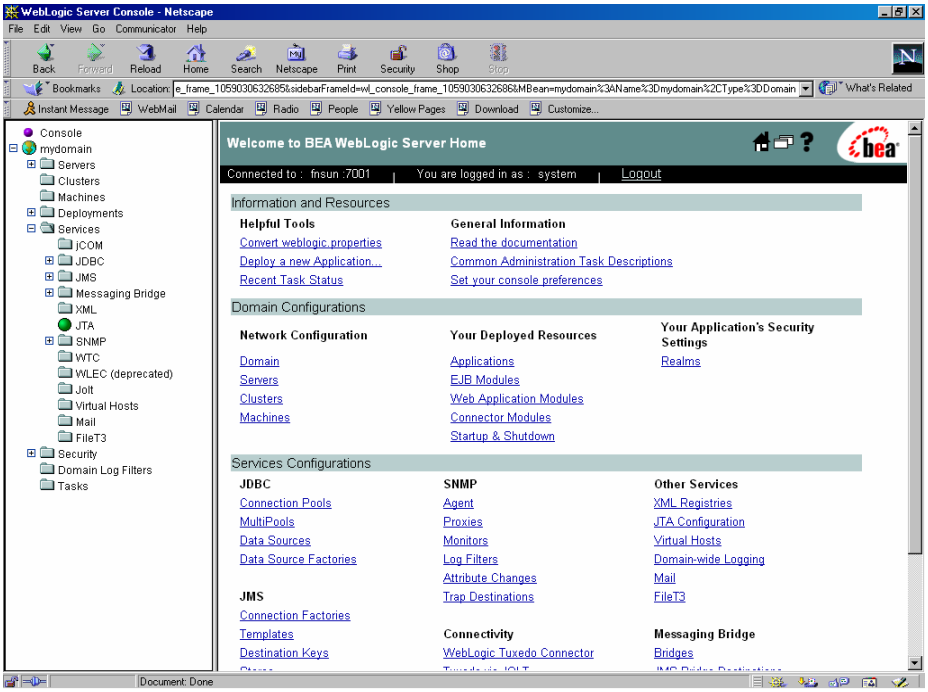
To undeploy ISRA ensure that WebLogic admin server is running. If it is not, start the WebLogic Administration Server as explained in the Deploying ISRA section.

The steps to undeploy ISRA using the Administration Console are:

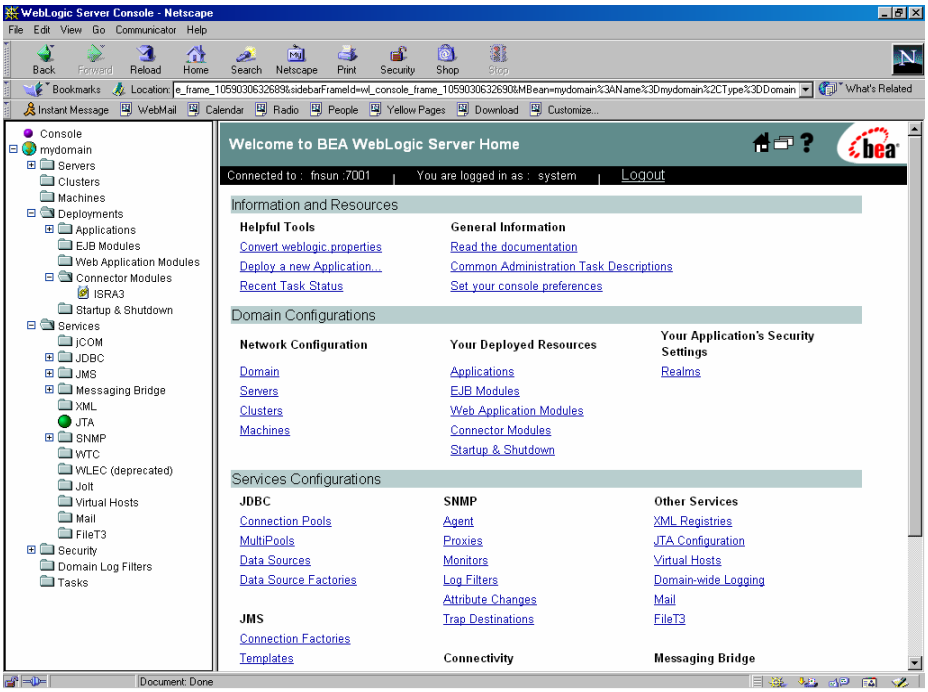
1. To start the administrative console enter the following URL in the Web browser http://hostname:portnumber/console. The WebLogic admin console sign on screen appears, as shown below:



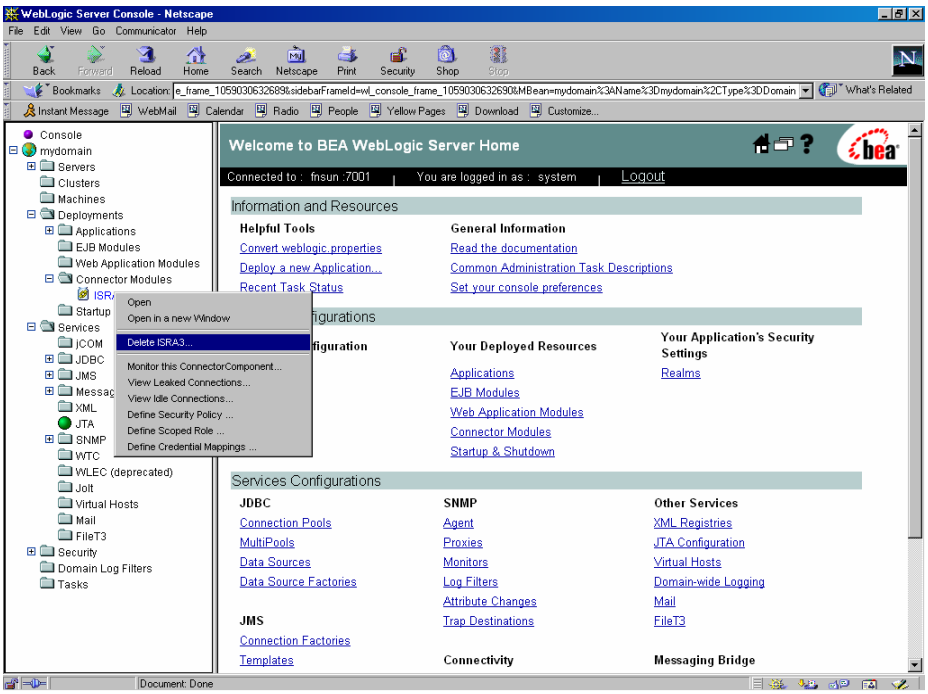
2. Enter **Username** and **Password**. Click **Sign In** to access the WebLogic admin console. The following screen appears:



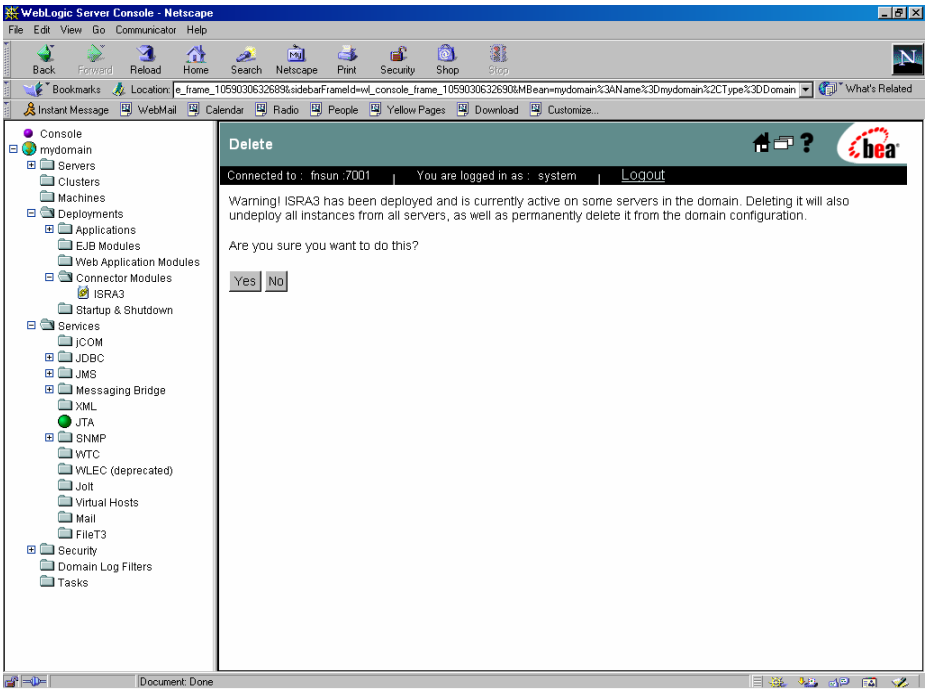
3. Navigate to **Deployments** > **Connectors Modules**. The following screen appears:



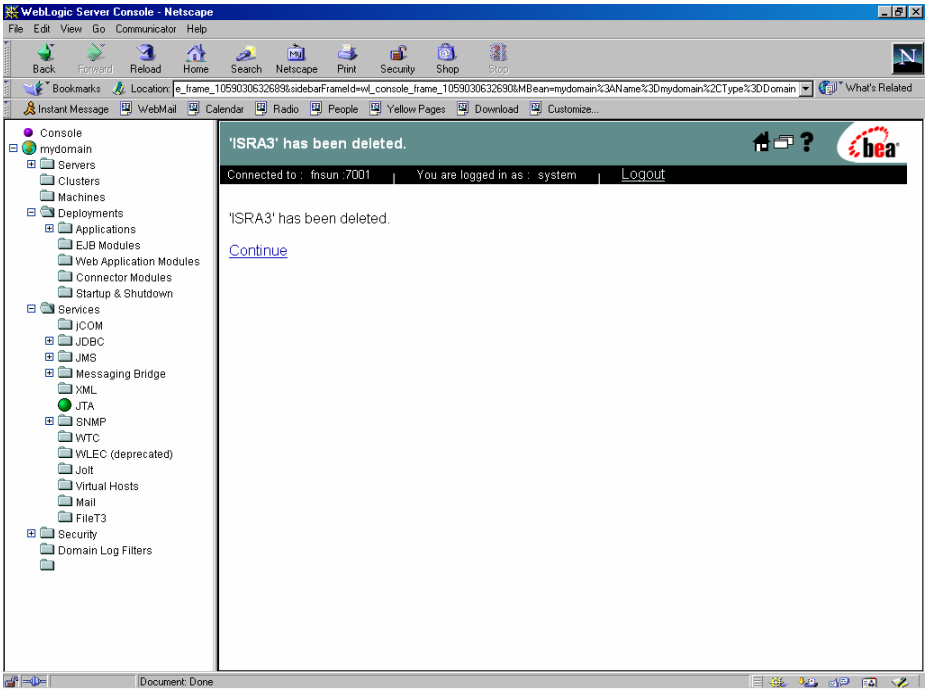
4. Right-click on ISRA in the left pane.



5. Click **Delete ISRA 3** The **Delete** screen appears.



6. Click **Yes** to confirm deletion of the ISRA. The screen appears, as shown below:



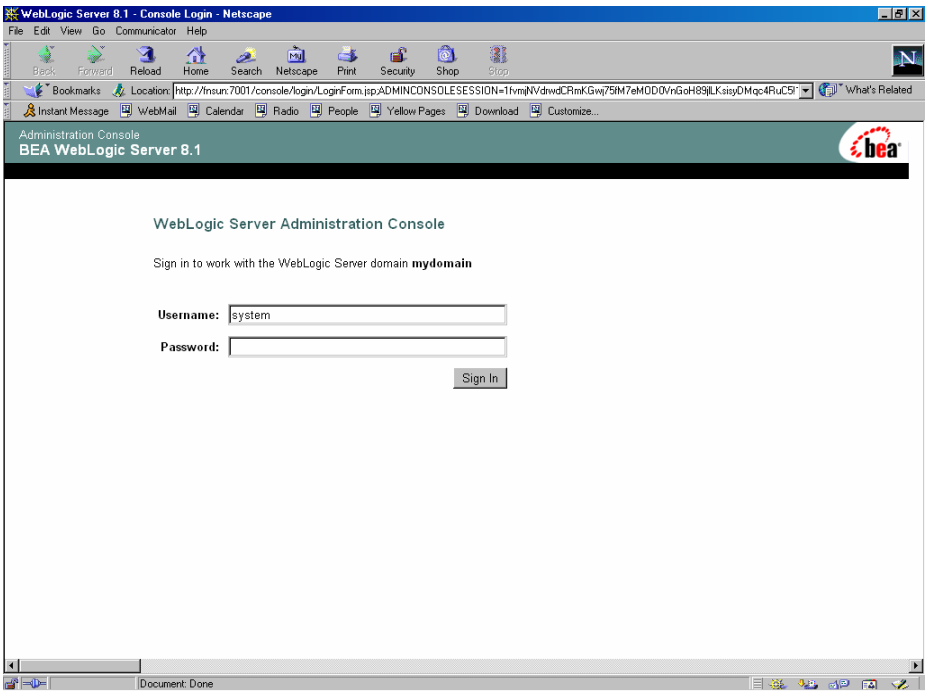
UnDeployment of the Sample Application

Ensure that WebLogic Administration server is running, else start the WebLogic Administration Server as explained in the Deploying ISRA section.

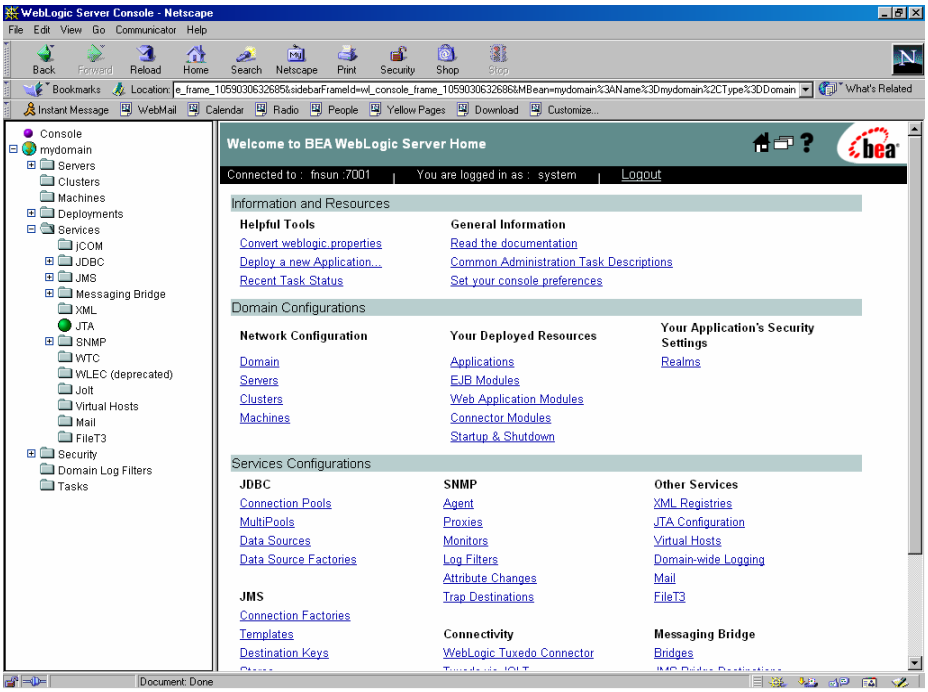
Note The user must undeploy the previous version of FileNet Image Viewer before deploying the latest version.

The steps to undeploy the Sample Application using the Administration Console are:

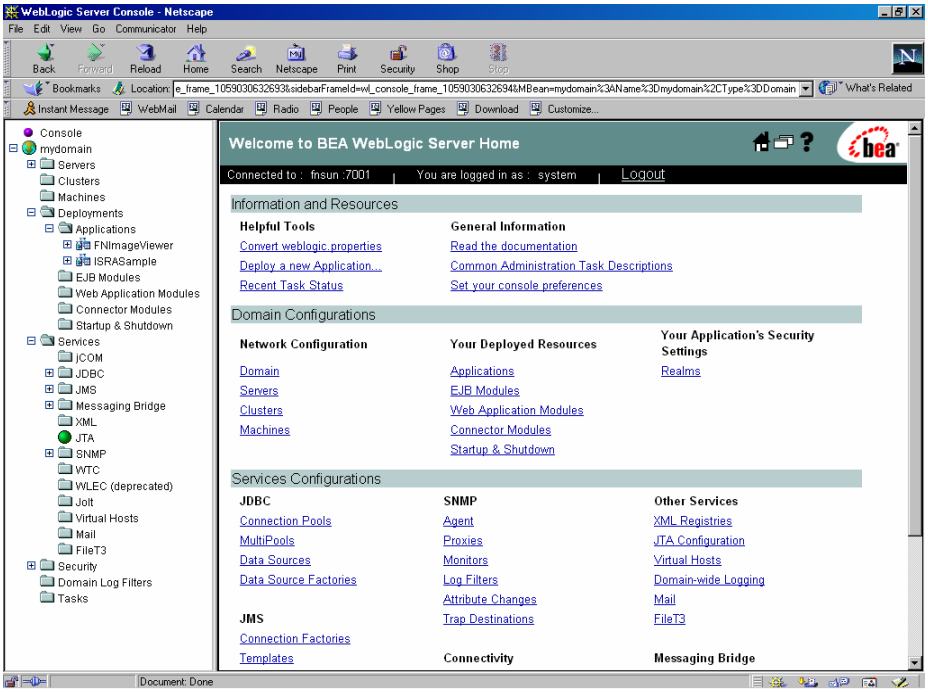
1. To start the administrative console, enter the following URL in the Web browser http://hostname:portnumber/console. The WebLogic admin console sign on screen appears, as shown below:



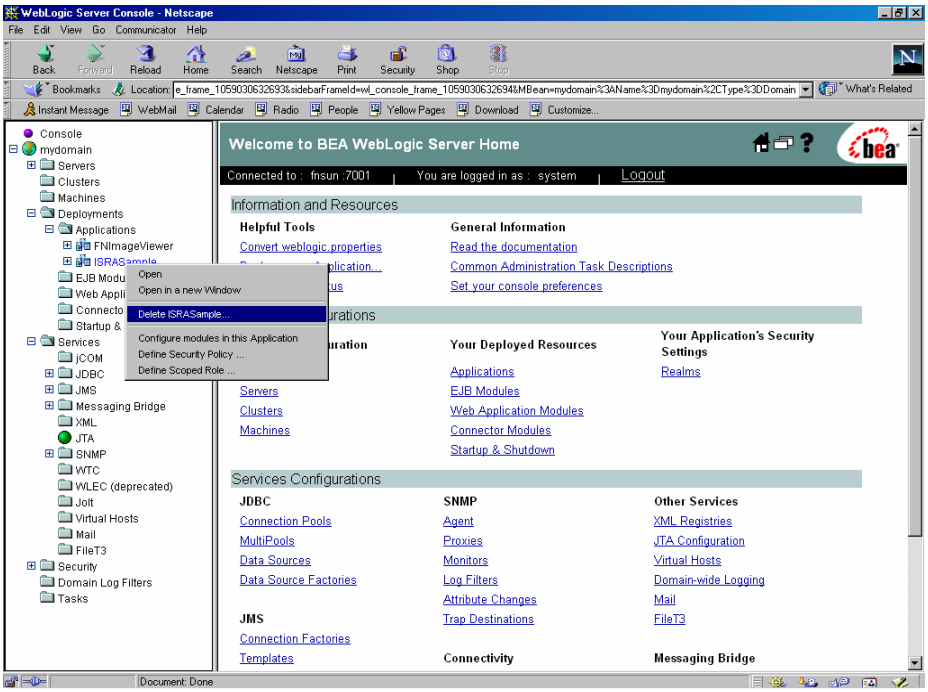
2. Enter **Username** and **Password,** and click **Sign In** to access the WebLogic admin console. The following screen appears:



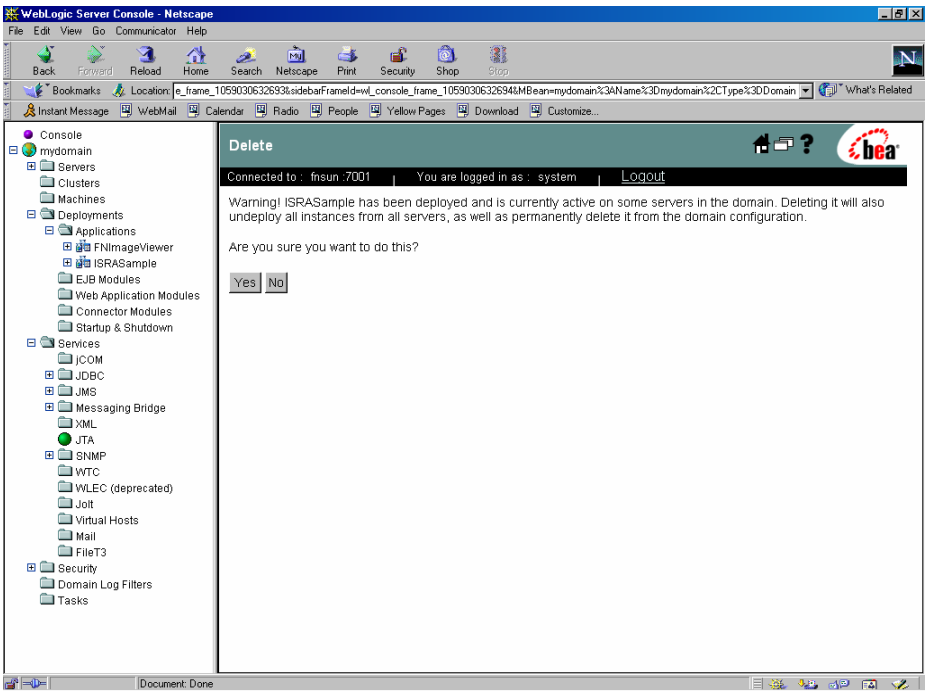
3. Navigate to **Deployments** > **Applications**. The following screen appears:



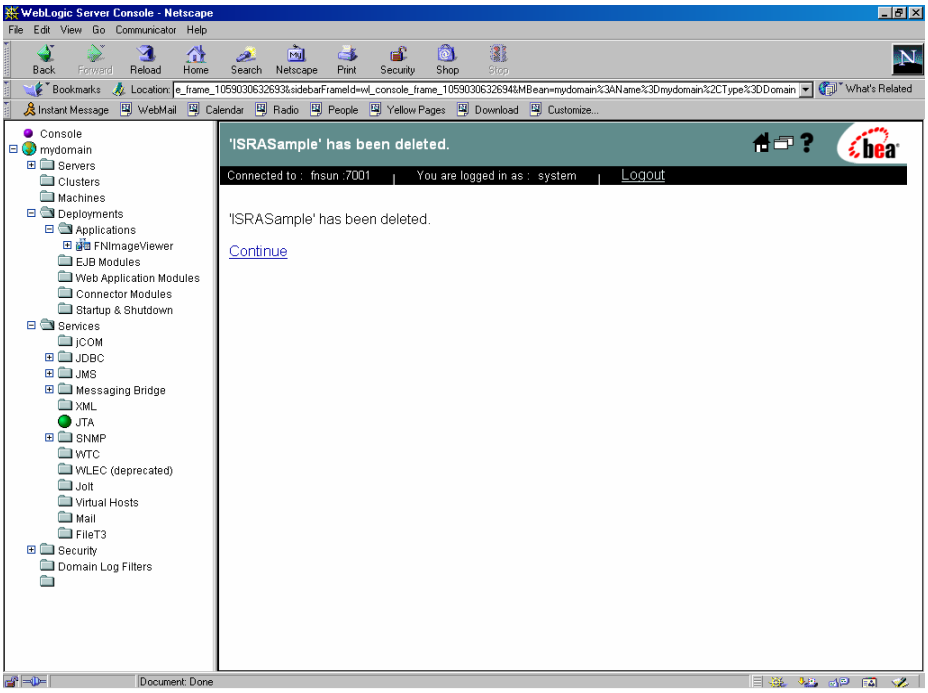
4. Right-click **ISRASample** in the left pane. Click **Delete ISRA Sample**.



5. Click **Delete ISRASample** to delete the Sample Application. The **Delete** screen appears.



6. Click **Yes** to confirm deletion. The screen appears, as shown below:



8
Troubleshooting

This section describes how to troubleshoot ISRA.

Disabling NCH Broadcasts

ISRA users (application client) need to access IS libraries across routers on networks where broadcasts are disabled. This is done by creating alias entries for the IS libraries in the hosts file, where ISRA is deployed. ISRA must locate the IP address of the NCH server to find other IS services for an IS setup.

ISRA attempts to find the NCH server by generating broadcast packets, even if the NCH server was not reachable using broadcasts. User can disable NCH server location broadcasts to reduce broadcast traffic on the network.

User may want to disable NCH broadcasts, if:

- Routers are present between servers;
- Want no broadcast activity on the networks;
- Want to force a multi-homed server to use a specific IP address configured by the operating system network directory search facility.

To specify the alias in the hosts file:

1. Locate **hosts file** on the server. It is located in the `/etc` folder on UNIX/Linux systems. On a Microsoft Windows Server, it is located in the `\system32\drivers\etc` under the Windows installation directory.
2. Open the hosts file with a text editor. If the hosts file does not exist, create a new file.
3. For each FileNet library that user needs to connect through ISRA, entries should be made in the hosts file as `<IP address of domain:organization> <domain-organization>-nch-server`, where:
    - `<IP address of domain:organization>` is IP address of a FileNet domain and organization identifying the target FileNet library system (NCH Server).
    - `<domain-organization>` is domain and organization name. The rules to follow while specifying the domain-organization name are:

- Delete all characters except ASCII alphanumeric characters and hyphens.
- Convert all upper case characters to lower case.
- Insert a hyphen between the domain and organization names.
- Append nch-server as a literal.

For example, if a FileNet library has a domain, fn_is, and organization, FileNet, and its IP address is 123.45.6.78, the hosts file entry will be `23.45.6.78 fnis-filenet-nch-server`

Note The underscore character is removed from the fn_is domain name and the F and Net in the FileNet organization name are converted to lower case.

Appendix A

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   C. End User accepts sole responsibility for, system configuration, design and requirements, selection of the software for the intended results, modifications, changes or alterations.

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7. **Choice of Law.** The laws of the State of California will govern the construction and operation of this Agreement without regard to the conflict of laws provisions thereof.

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Appendix B

ra.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE connector PUBLIC '-//Sun Microsystems, Inc.//DTD Connector
1.0//EN' 'http://java.sun.com/dtd/connector_1_0.dtd'>
<connector>
  <display-name>ISRA</display-name>
  <vendor-name>FileNet</vendor-name>
  <spec-version>1.0</spec-version>
  <eis-type>FileNet Image Services</eis-type>
  <version>3.2.1</version>
  <license>
    <license-required>false</license-required>
  </license>
  <resourceadapter>
    <managedconnectionfactory-
class>com.filenet.is.ra.spi.FN_IS_SpiManagedConnectionFactory</managedco
nnectionfactory-class>
    <connectionfactory-
interface>javax.resource.cci.ConnectionFactory</connectionfactory-
interface>
    <connectionfactory-impl-
class>com.filenet.is.ra.cci.FN_IS_CciConnectionFactory</connectionfactor
y-impl-class>
    <connection-interface>javax.resource.cci.Connection</connection-
interface>
    <connection-impl-
class>com.filenet.is.ra.cci.FN_IS_CciConnection</connection-impl-class>
    <transaction-support>NoTransaction</transaction-support>
    <config-property>
      <description>Domain name of the Image Services
Server</description>
      <config-property-name>DomainName</config-property-name>
      <config-property-type>java.lang.String</config-property-type>
      <config-property-value>FileNetIS</config-property-value>
    </config-property>
    <config-property>
      <description>Organization name of the Image Services
Server</description>
      <config-property-name>OrganizationName</config-property-name>
      <config-property-type>java.lang.String</config-property-type>
      <config-property-value>FileNet</config-property-value>
    </config-property>
    <config-property>
      <description>0-Exceptions and Warnings; 1-Info; 2-
Debug_Level</description>
      <config-property-name>LoggingLevel</config-property-name>
      <config-property-type>java.lang.Integer</config-property-type>
```

```
      <config-property-value>0</config-property-value>
    </config-property>
    <config-property>
      <description>0-No Logging; 1-Console Logging; 2-File Logging; 3-
Both(File and console)</description>
      <config-property-name>LoggingMode</config-property-name>
      <config-property-type>java.lang.Integer</config-property-type>
      <config-property-value>3</config-property-value>
    </config-property>
    <config-property>
      <description>Page data fetch size (in kilo bytes)</description>
      <config-property-name>PageBufferSize</config-property-name>
      <config-property-type>java.lang.Integer</config-property-type>
      <config-property-value>64</config-property-value>
    </config-property>
    <config-property>
      <description>Cache refresh interval(in minutes)</description>
      <config-property-name>CacheRefreshInterval</config-property-name>
      <config-property-type>java.lang.Integer</config-property-type>
      <config-property-value>30</config-property-value>
    </config-property>
    <config-property>
      <description>Name of the Product</description>
      <config-property-name>ProductName</config-property-name>
      <config-property-type>java.lang.String</config-property-type>
      <config-property-value>FileNet Image Services Resource
Adapter</config-property-value>
    </config-property>
    <config-property>
      <description>Product Version</description>
      <config-property-name>ProductVersion</config-property-name>
      <config-property-type>java.lang.String</config-property-type>
      <config-property-value>ISRA 3.2.1 Enterprise</config-property-
value>
    </config-property>
    <config-property>
      <description>ISRA Logfile name (can include path) </description>
      <config-property-name>LogFileName</config-property-name>
      <config-property-type>java.lang.String</config-property-type>
      <config-property-value>ISRA.log</config-property-value>
    </config-property>
    <config-property>
       <description>Maximum Size of ISRA LogFile (in mega
bytes)</description>
        <config-property-name>LogFileSize</config-property-name>
        <config-property-type>java.lang.Integer</config-property-type>
        <config-property-value>5</config-property-value>
    </config-property>
      <config-property>
               <description>LDAP Authentication Class Name</description>
          <config-property-name>LdapImplClassName</config-property-
name>
          <config-property-type>java.lang.String</config-property-type>
          <config-property-
value>com.filenet.is.ra.fnis.FN_IS_IPlanetImpl</config-property-value>
    </config-property>
    <config-property>
```

```
              <description>Server details for LDAP Authentication
</description>
          <config-property-name>LdapImplClassString</config-property-
name>
          <config-property-type>java.lang.String</config-property-type>
          <config-property-
value>filenetserver;389;ou=filenet,ou=people,dc=filenetroot</config-
property-value>
    </config-property>
    <config-property>
            <description>Inherently login through LDAP authentication
or not 0-Direct IS Login;1-LDAP Authentication</description>
         <config-property-name>InherentLogin</config-property-name>
         <config-property-type>java.lang.Integer</config-property-type>
         <config-property-value>0</config-property-value>
    </config-property>
    <config-property>
       <description>Name of the User that is used to create Cache for
ISRA</description>
        <config-property-name>CacheUser</config-property-name>
        <config-property-type>java.lang.String</config-property-type>
        <config-property-value>SysAdmin</config-property-value>
    </config-property>
    <config-property>
       <description>Password of the User that is used to create Cache
for ISRA</description>
        <config-property-name>CacheUserPassword</config-property-name>
        <config-property-type>java.lang.String</config-property-type>
        <config-property-value>SysAdmin</config-property-value>
    </config-property>
    <config-property>
       <description>ISRA instance that is currently being deployed on a
single machine; Min Value = 1, Max Value = 10</description>
        <config-property-name>DeploymentInstance</config-property-name>
        <config-property-type>java.lang.Integer</config-property-type>
        <config-property-value>1</config-property-value>
    </config-property>
    <authentication-mechanism>
      <authentication-mechanism-type>BasicPassword</authentication-
mechanism-type>
      <credential-
interface>javax.resource.security.PasswordCredential</credential-
interface>
    </authentication-mechanism>
    <reauthentication-support>false</reauthentication-support>
  </resourceadapter>
</connector>
```

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