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Image Services Resource Adapter

Installation and Deployment Guide

For IBM WebSphere Application Server Version 6

Release 3.2.1

April 2006

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About This Manual

This manual provides information about installing and configuring FileNet Image Services Resource Adapter (ISRA) 3.2.1 on IBM WebSphere Application Server 6.

Conventions Used in this 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 after installing ISRA 3.2.1. The path for FNImageViewer documentation is:

<ISRA-home>\ISRA321\FNImageViewer\docs

For all P8 System Manager related information, please refer to P8 System Manager documentation after installing ISRA 3.2.1. The path for P8 System Manager documentation is:

<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 an IBM WebSphere Application Server version 6 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, which is J2EE Connector Architecture v1.0 compliant. 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 necessary files and information for deployment on a supported Application Server.

ISRA is available in two different editions:

- View edition: Supports ISRA Read-only interactions.
- Enterprise edition: Supports additional interactions that include document creation, updating of document properties, inserting and retrieving of queue entries and saving annotations.

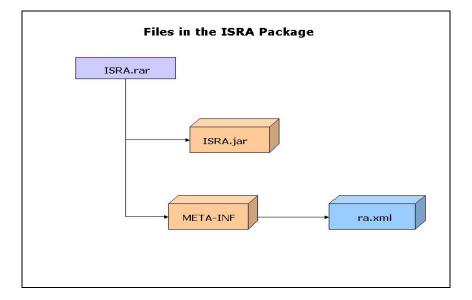
Resource Adapter Module

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 to install ISRA are:

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 HPUX:

- Using a preferred editor (for example, vi), edit the /etc/pfs_fstab file by adding an entry similar to /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 IBM AIX 5.1 and 5.2:

Perform this step only if CD-ROM device is not already mounted. Note that one 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 command # mkdir /cdrom

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 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 and Solaris or setup.exe on Windows Server.
 - On HPUX, IBM AIX, Linux, or Solaris server or Linux navigate to the respective folder on the CD-ROM drive to locate setup.bin. To do this, type:

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

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

The installation screen appears.

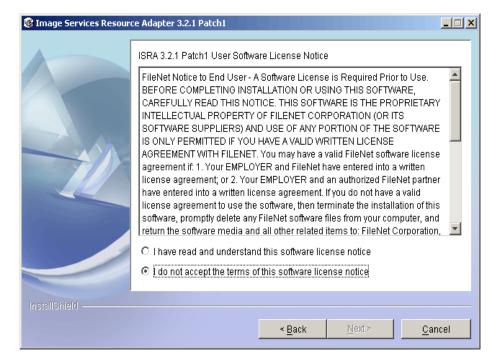


3. If user clicks **Cancel**, the following dialog box appears:



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.

Image Services Resources	ce Adapter 3.2.1 Patch1	_ 🗆 🗙
InstallBhield	Please enter the serial number.	
	< <u>Back</u> ar	icel

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 below:



• The Enterprise edition screen appears as below:



7. Click Next to proceed with the installation.

Image Services Resources	ce Adapter 3.2.1 Patch1	<u> </u>
	Setup will install ISRA into the following folder, if you want to install in a different folder and/or drive, type the name of the folder below: Directory Name: C:tfnswISRA321 Brows	
InstallShield	< <u>B</u> ack <u>N</u> ext > <u>C</u> an	icel

8. Choose the directory to install ISRA and click **Next** to proceed. The default path shown is //fnsw/ISRA321. Before copying ISRA files to the destination, the following screen appears:

Image Services Resources	ce Adapter 3.2.1 Patch1	<u> </u>
	Please Review the Following Before Continuing: Image Services Resource Adapter will be installed in the following location: CtfnswlISRA321	_
	for a total size: 57 MB	
InstallShield	< <u>Back</u>	cel

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:

Image Services Resources	e Adapter 3.2.1 Patch1	_ 🗆 X	
	Installing Image Services Resource Adapter. Please wait		
	C:tfnswlISRA321\Sample\FNImageViewer.ear 34%	_	
	37.0		
InstallShield			
	< <u>Back</u> ea	ncel	

10. The following screen appears, when ISRA installation completes:

Image Services Resources	ce Adapter 3.2.1 Patch1	<u> </u>
	Congratulations !	
	The InstallShield Wizard has successfully installed Image Services Resourd Adapter. Choose Finish to exit the wizard.	Ce
InstallShield		
	< <u>B</u> ack <u>N</u> ext > Fin	ish

11. Click Finish.

Login as root user and execute the command to unmount the CD-ROM # umount /cdrom

Remove 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 <Real Path>/<name of template file>,
e.g. fnsw\ISRASilent\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 any J2EE 1.3 compliant Application Server. This manual describes the deployment of ISRA on IBM WebSphere Application Server version 6.

Note The installation procedure for IBM WebSphere Application Server v6 and installing ISRA in clustered environment is outside the scope of this document, and it is assumed the required settings and configurations are satisfied.

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 an IBM WebSphere Application Server v6.

Hardware Requirements

- Please refer to the IBM WebSphere system requirements section at <u>http://www.ibm.com/software/Webservers/appserv/doc/latest/prereq.ht</u> <u>ml</u>
- The IBM WebSphere documentation is available at <u>http://www.software.ibm.com/Webservers/appserv/library.html</u>
- ISRA installation will require at least 80MB free disk space.

Software Requirements

- IBM WebSphere Application Server 6 installed on HPUX, IBM AIX 5.1 and 5.2, Linux, Sun Solaris 9 or Windows 2000 and 2003 Server.
- IBM WebSphere Network Deployment Manager 6.0 installed on IBM AIX 5.1 and 5.2 or Sun Solaris 9.
- FileNet IS 3.6 SP2 and above.

Deploying ISRA in a Standalone Environment

ISRA is deployed using the WebSphere Administrative Console. The steps to deploy are:

1. Start the WebSphere 'First steps'. Login as the root user and execute the WebSphere firststeps.sh script, as follows:

```
# cd <WebSphere
home>/AppServer/profiles/default/firststeps
# ./firststeps.sh
```

WebSphere Application Server - First steps - default WebSphere Application Server	IIX.
First steps	
Installation verification Confirm that your server is installed and that it can start properly.	
Start the server Start the server and its applications.	
Administrative console Install and administer applications.	
Profile creation wizard Create a profile.	
Samples gallery See WebSphere Application Server in action.	
Information center for WebSphere Application Server Learn more about WebSphere Application Server.	
Migration wizard Migrate WebSphere Application Server V4 or V5 to V6.0.	
Exit	

- 2. Click Start the server.
- 3. Launch a web browser and enter the URL http://server:port/admin.

Here, 'server' is name of the host where WebSphere server is running and 'port' is the port number on which the admin server is listening. By default, this port number is 9060.

Login to the WebSphere Administrative console, which is a web based interface.

The WebSphere Administrative console screen appears:

🕲 IBM WebSphere Application Server Administrative Login - Netscape	
Elle Edit View Go Bookmarks Tools Window Help	
🕥 🗿 🔕 💽 http://israis:9060/bm/console/	
🚬 / 🖽 Home 🔤 Netscape 🔍 Search 🛇 Customize	
🖉 Netscape 👻 Enter Search Terms 💌 🔍 Search 🤌 Highlight 🕺 Pop-Ups Blocked: 1 🥜 Form Fill 👻 🖉 Clear Browser His	story 📃 News 🖾 Email 😂 Weather »
🕑 New Tab 🛇 IBM WebSphere Application Server Adminis	X
	o e i i i i i i i i i i i i i i i i i i
Welcome, please enter your information.	
User ID: admin	
Log in	
The User ID does not require a password, and does not need to be a User ID of a user in the local user registry. It is only used to track user-specific changes to configuration data. Security is NOT enabled	
	Ξ
S Og / Done	

4. Enter the User ID and click Log in. The following screen appears:

WebSphere Administrative Console - Nets File Edit View Go Bookmarks Tools Win		
	= · ;//israis:9060/ibm/console/secure/logon.do	
/ 🖬 🖌 🐔 Home 🔤 Netscape 🔍 Search	Customize	
Netscape - Enter Search Terms	▼ Q Search Highlight Pop-Ups Blocked: 1	🥜 Form Fill 👻 🥔 Clear Browser History 🛛 🗮 News 🖂 Email 🔅 Weather 🔅
New Tab 🛇 WebSphere Administrative Consi	ole	
Velcome admin Logout Support	l Help	
Welcome		
Servers	•••• Common Administrative Tasks	
Applications		About your WebSphere Application Server
Resources	WebSphere Application Server Cheat Sheets guide you through common administrative tasks. No Cheat Sheets are	IBM WebSphere Application Server - Express, 6.0.0.1
E Security	currently installed. Visit <u>WebSphere Application Server</u> Support to browse and download the available Cheat	Build Number: 00445.08 Build Date: 11/10/04
Environment	Support to browse and download the available Cheat Sheets.	Licensed Material - Property of IBM
System administration		5724-i63, 5724-H88 (C) Copyright IBM Corp. 1996,
Monitoring and Tuning		2004
Troubleshooting		
Service integration		
UDDI	••• WebSphere Application Server on	•••• <u>Documentation</u>
	IBM.com	For documentation, including articles and PDF files, visit the
	Find groduct Information on [BM.com about the WebSphere software family. OS/400 information is found on the WebSphere Application Server for OS/400 product Web site.	online information center: OSA00 users can find this information on the WebSphere Application Server <u>OSA00</u> documentation Web site.
	••• developerWorks WebSphere	
	Oet the latest technical articles, best practices, tutivials and much more in the <u>VebcStree Applications Server Zone</u> . Influence the evolution of VebcSphere Application Server and <u>request new product features</u> .	
) œ'		- I

5. Navigate to **Resources >Resource Adapters**. The following screen appears:

WebSphere Administrative Console - Nets File Edit View Go Bookmarks Tools Win	
💭 🖬 Home 🔤 Netscape 🔍 Search	S Customize
Netscape - Enter Search Terms	💽 🔍 Search 🖉 Highlight 🕺 Pop-Ups Blocked: 1 🧳 Form Fill 🔻 🥒 Clear Browser History 👼 News 🖙 Email 🔅 Weather
🕘 New Tab 🔇 🛇 WebSphere Administrative Cons	le
Welcome admin Logout Support	Help
Welcome Servers Applications	A resource adapter is an implementation of the JOEE Connector Architecture Specification that provides access for applications to resource actuited eff the sativer or provides access for an Enterprise Information System (EIS) to applications on the server. It can provide a application access to resources such as DE2, CICS, SAP and PeopleSoft. It can provide a Teidd help
E Resources	EIS with the ability to communicate with message driven beans that are configured on the server. Some resource adapters are provided by IBM; however, third party vendors can
JMS Providers JDBC Providers Resource Adapters Asynchronous beans Schedulers	provide their own resource adapters. A resource adapter implementation is provided in a resource adapter archive filt this file has an extension of .r.a. A resource adapter can be provided as a standalone adapter or as part of an application, in which case it is referred to as an embedded adapter. Use this panel to install a standalone resource adapter archive file. Embedded adapters are installed as part of the application install. ☐ Scope: Cell=israisNode01Cell, Node=israisNode01
Cache instances Object pool managers Mail Providers URL Providers Resource Environment Providers	C cell : israisNode01cell resource definition is visible. For detailed information on what zcope is and how it works, <u>zee the zcope settings halo</u> C server : server1
🕅 Security	Apply
Environment	Preferences
Monitoring and Tuning	Install RAR New Delete
Troubleshooting	
Service integration	Select Name 🗘
UDDI	SIB JMS Resource Adapter
	WebSphere Relational Resource Adapter Total 2
<u>9</u> 0 <u>7</u>	

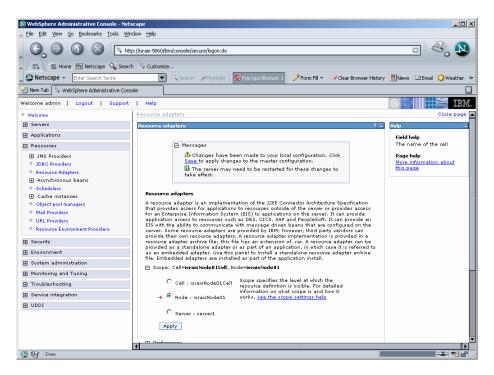
6. Click Install RAR. The following screen appears:

🕲 WebSphere Administrative Console - Nel	scape
Eile Edit View Go Bookmarks Tools W	ndow Help
, C, O O O 🕟	tp://israis:9060/bm/console/secure/logon.do
🖌 🗇 🏦 Home 🔤 Netscape 🔍 Sean	ch 🛇 Customize
Netscape - Enter Search Terms	💌 🔍 Search 🔗 Highlight 🛛 🕺 Pop-Ups Blocked: 1 🛛 🥜 Form Fill 👻 🥔 Clear Browser History 👼 News 🖾 Email 🌾 Weather 🛸
New Tab 🛇 WebSphere Administrative Con	sole
Welcome admin Logout Support	Help
Welcome Servers Applications	Resource adapters Close page Install RAR File _ 7
Resources	
JMS Providers JDSC Providers Resource Adapters Asynchronous beans Schedulers Cache instances Object pool managers Mult Providers Resource Environment Providers	RAR files can be installed using two methods. You can choose to upload a RAR file from local file system or you can specify an existing RAR file on a server. Path © Local path: Specify path Biowsa C Server path: Specify path
E Security	Scope Node
Environment	israisNode01 🗸
 System administration Monitoring and Tuning 	
Troubleshooting	Next Cancel
Service integration	
S Of Done	

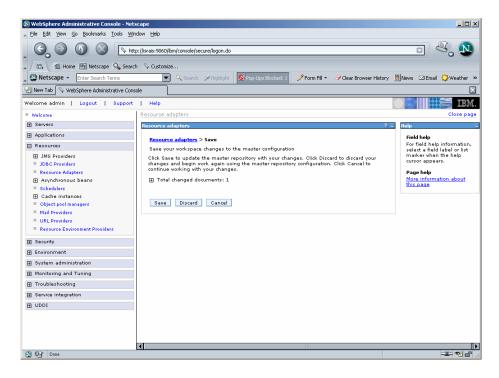
7. Click **Browse** to navigate to the directory where ISRA 3.2.1 is installed. Select the **ISRA.rar** file from the jar folder of ISRA installation directory. Click **Next**. The General Properties screen appears.

🔕 WebSphere Administrative Console - Net	scape	
_ <u>File Edit View Go Bookmarks T</u> ools <u>W</u> i	ndow <u>H</u> elp	
, C, O () () 🕟	ip://israis:9060/bm/console/secure/logon.do	&, N
🖌 🗇 🐔 Home 🔤 Netscape 🔍 Searc	h 🛇 Customize	
Netscape - Enter Search Terms	💌 🔍 Search 🖋 Highlight 🛛 🐼 Pop-Ups Blocked: 1 🧳 Form Fill 👻 🥔 Clear Browser History	📃 News 🖾 Email 🔅 Weather »
😢 New Tab 🛇 WebSphere Administrative Con:	sole	×
Welcome admin Logout Support	Help	IEM.
= Welcome	Resource adapters	Close page 🔺
	Resource adapters ? –	Help –
	Resource adapters > New	Field help
Resources	A resource adapter is an implementation of the J2EE Connector Architecture Specification	For field help information, select a field label or list
JDNS Providers JDBC Providers JDBC Providers Resource Adapters Asynchronous beans Schedulers Cabe instances Object pool managers Mail Providers URL Providers Resource Environment Providers	that provides access for applications to resources outside of the server or provides access for an Interprise Information System (ISI) to applications on the server. It can provide application access to resources such as DB2, CICS, SAP and PeopleSoft. It can provide an EIS with the ability to communicate with message driven beans that are configured on the server. Some resource adapters. A resource adapter interplementation is provided the provide the provide their own resource adapters in Aresource adapter interplementations in provided in a provide their own resource. Use the panel to install a standalone resource adapter archive file. Embedded adapters are installed as part of the application install. Configuration	marker vhen the help cursor appears. Page help More information about this page
■ Security	General Properties	
Environment	* Scope	
System administration	cells:israisNode01Cell:nodes:israisNode01	
Monitoring and Tuning	Name	
Troubleshooting	Description	
Service integration		
E UDDI	Archive path	
(B) (D2) (Days		
S OF Done		

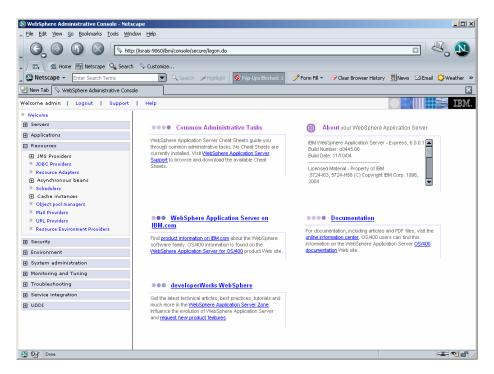
8. Click **OK**. The ISRA.rar file gets uploaded. A confirmation message is displayed, as shown in the screen below:



9. Click the Save link in the Messages box (in the right pane).



10. Click **Save** to save the changes to the master configuration. The following screen appears.



11. Restart the WebSphere Node (or Application Server) after deployment. This step is required to ensure that the ISRA classes are in the Application Server's CLASSPATH.

- **12.** To verify the ISRA deployment, deploy the Sample Application provided with ISRA and logon through the Sample Application.
 - **Note** User can configure multiple Connection Factories with unique JNDI names to connect to multiple IS servers from ISRA. Configuration of multiple Connection Factories is explained in <u>Configuring Deployed ISRA</u> section.

Deploying ISRA in a Clustered Environment

In a clustered environment, ISRA is deployed using the WebSphere Network Deployment Manager Administrative console.

Note After installing Network Deployment Manager you need to create a Deployment Manager profile using Profile Creation Wizard. For example "dmgr" profile mentioned below in the first step of ISRA deployment.

The steps to deploy ISRA are:

1. Start the WebSphere 'First Steps'. Login as the root user and execute the WebSphere firststeps.sh script, as follows:

cd <DeploymentManager home>/profiles/dmgr/firststeps
./firststeps.sh



2. Click Start the Server.

3. Launch a web browser and enter the URL http://server:port/admin

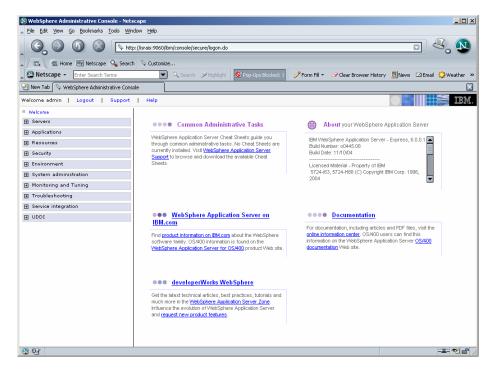
Here, 'server' is name of the host where WebSphere Network Deployment Manager is running and 'port' is the port number on which the admin server is listening. By default, this port number is 9091.

Login to the WebSphere Network Deployment Manager Administrative console, which is a web based interface.

The WebSphere Administrative console screen appears.

🔊 IBM WebSphere Application Server Administrative Login - Netscape	
File Edit View Go Bookmarks Iools Window Help	
Co C	
🚬 🗇 📶 Home 🔤 Netscape 🔍 Search 🛇 Customize	
🗶 🖎 Netscape 👻 Enter Search Terms 🔍 🔍 Search 🥩 Highlight 🛛 🕺 Pop-Ups Blocked: 1 🧳 Form Fill 👻 🥔 Clear Browser Histo	ory 👼 News 🖾 Email 🍄 Weather 😕
🕗 New Tab 🛇 IBM WebSphere Application Server Adminis	×
Welcome, please enter your information.	
weicome, piease enter your miormation.	
User ID:	
admin	
Log in	
The User ID does not require a password, and does not need to be a User ID of a user in the local user registry. It is only used to track user-specific changes to configuration data. Security is NOT enabled	
is only used to that user specific changes to configuration data: becany is not ensured	
	=
	-
S OF Done	-11- 🔁 🖆 🏑

4. Enter User ID and click OK. The following screen appears:



5. Navigate to **Resources >Resource Adapters**. The following screen appears:

Core page Core Core page Core Core page Core	WebSphere Administrative Console - Nets		_D×
New Tab New Tab WebSphere Administrative Console Welcome kldfjkldskif Logout Support Help Welcome kldfjkldskif Logout Support Help Resource adapters Close page Berverse Berverse Berverse Close page Close page Welcome kldfjkldskif Logout Support Help Resource adapters Close page Cl		- ' ://fn-artik::9096//bm/console/secure/logon.do	
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Service integration Apply UDDI Preferences Install RAR New Delete	Troubleshooting		
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6. Click **Browse Nodes** to deploy ISRA.rar on all the servers in a node. The following screen appears:

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7. Select a **Node** and click **OK**. The following screen appears:

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	application access to resources such as DB2, CICS, SAP and PeopleSoft. It can provide an
Resources	server. Some resource adapters are provided by IBM; however, third party vendors can Mare information about
 JMS Providers JDBC Providers 	provide their own resource adapters. A resource adapter implementation is provided in a resource adapter archive file: this file has an extension of ,rar. A resource adapter can be
 JDBC Providers Resource Adapters 	provided as a standalone adapter or as part of an application, in which case it is referred to as an embedded adapter. Use this panel to install a standalone resource adapter archive
Resource Adapters Asynchronous beans	as an embedded adapter, use this paner to install a standardone resource adapter archive file. Embedded adapters are installed as part of the application install.
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	Scope specifies the level at which the resource definition is visible. For detailed
Object pool managers	scope specifies the level at which the resource definition is visible. For detailed information on what scope is and how it works, <u>see the scope settings help</u>
Mail Providers	Cell
URL Providers	fn-arcticCell
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E Security	fn-arcticNode01 Browse Nodes Browse Clusters
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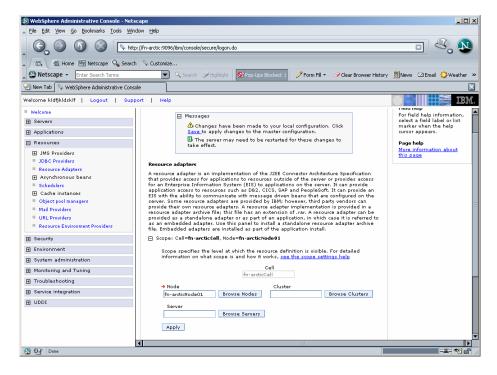
8. Click **Apply** and then Click **Install RAR**. The following screen appears:

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Welcome kidfjkidskif Logout Supp	port Help
= Welcome	Resource adapters Close page
Applications	Install RAR File?
E Resources	RAR files can be installed using two methods. You can choose to upload a RAR file from local file system or you can specify an
JDNS Providers JDBC Providers JDBC Providers Resource Adapters Asynchronous beans Schedulers Cache instances Object pool managers Mail Providers ULE Providers Resource Environment Providers	existing RAR file on a server. Path C Local path: Specify path Browse C Server path: Specify path Browse
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9. Click **Browse** to navigate to the directory where ISRA 3.2.1 is installed. Select the **ISRA.rar** file from the jar folder of ISRA installation directory. Click **Next**. The General Properties screen appears.

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	for an Enterprise Information System (EIS) to applications on the server. It can provide application access to resources such as DB2, CICS, SAP and PeopleSoft. It can provide an	Field help
Resources	EIS with the ability to communicate with message driven beans that are configured on the	The name of the resource
JMS Providers	server. Some resource adapters are provided by IBM; however, third party vendors can provide their own resource adapters. A resource adapter implementation is provided in a	adapter. If this property is not specified, the value of
JDBC Providers	resource adapter archive file; this file has an extension of .rar. A resource adapter can be provided as a standalone adapter or as part of an application, in which case it is referred to	the display-name in the deployment descriptor will
Resource Adapters	as an embedded adapter. Use this panel to install a standalone resource adapter archive	be used.
Asynchronous beans	file. Embedded adapters are installed as part of the application install.	Page help
Schedulers	Configuration	More information about
 Cache instances Object pool managers 		this page
 Object pool managers Mail Providers 		
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Resource Environment Providers	+ Scope	
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Security	Name	
Environment		
System administration	Description	
Monitoring and Tuning		
Troubleshooting		
Service integration		
UDDI	Archive path	
	Class path	
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10. Click **OK**. The ISRA.rar file gets uploaded. A confirmation message is displayed, as shown in the screen below:



11. Click the Save link in the Messages box (in the right pane).

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Applications	Resource adapters > Save	Field help
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JMS Providers JDBC Providers Resource Adapters Asynchronous beans Schedulers	Cilck Save to update the master repository with your changes. Cilck Discard to discard your changes and begin vork spain using the master repository configuration. Cilck Cancel to continue working with your changes.	marker when the help cursor appears. Page help More information about this page
Cache instances Object pool managers Mail Providers URL Providers Resource Environment Providers	Synchronize changes vith Nodes Save Discard Cancel	
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12. Enable the **Synchronize Changes with Nodes** check box, and click **Save** to save the changes to the master configuration. The following screen appears.

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Servers	that provides access for applications to resources outside of the server or provides access for an Enterprise Information System (EIS) to applications on the server. It can provide	Page help More information about
Applications	application access to resources such as DB2, CICS, SAP and PeopleSoft. It can provide an EIS with the ability to communicate with message driven beans that are configured on the	this page
E Resources	server. Some resource adapters are provided by IBM; however, third party vendors can provide their own resource adapters. A resource adapter implementation is provided in a	
∃MS Providers	resource adapter archive file; this file has an extension of .rar. A resource adapter can be provided as a standalone adapter or as part of an application. In which case it is referred to	
JDBC Providers	as an embedded adapter. Use this panel to install a standalone resource adapter archive file. Embedded adapters are installed as part of the application install.	
Resource Adapters Asynchronous beans	file. Embedded adapters are installed as part of the application install. Scope: Cell=fn-arcticCell, Node=fn-arcticNode01	
Schedulers		
	Scope specifies the level at which the resource definition is visible. For detailed information on what scope is and how it works, see the scope settings help	
Object pool managers	Cell	
Mail Providers IIRI Providers	fn-arcticCell	
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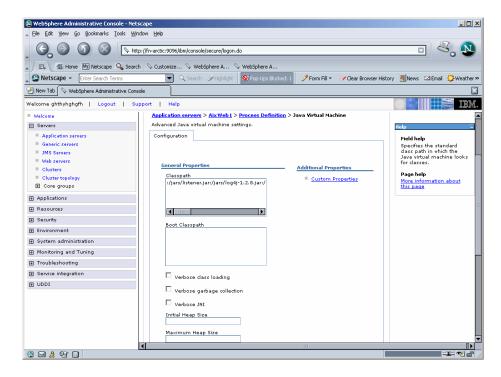
- **13.** To verify the ISRA deployment, deploy the Sample Application provided with ISRA and perform a logon through the Sample Application.
- **14.** Restart the WebSphere cluster using the Network Deployment Manager after deployment. This step is required to ensure that the ISRA is deployed properly in the cluster.
 - **Note** User can configure multiple Connection Factories with unique JNDI names to connect to multiple IS servers from ISRA. Configuration of multiple Connection Factories is explained in <u>Configuring Deployed ISRA</u> section.

Mandatory Requirements for ISRA 3.2.1

The mandatory requirements for ISRA 3.2.1:

Steps to include **listener.jar** and **log4j-1.2.8.jar** in the classpath of Application Server are:

- 1. Login to the WebSphere Administrative console.
- 2. Navigate to Servers > Application Servers, and select the server.
- 3. Under Server Infrastructure, expand the link Java and Process Management.
- 4. Under Additional Properties, click Process Definition.
- 5. Under Additional Properties, click Java Virtual Machine.
- 6. Include listener.jar and log4j-1.2.8.jar in the Classpath, as shown below:



3 ISRA Configuration

This chapter describes how to configure ISRA on a WebSphere Application Server version 6, after it is deployed.

Configuring Deployed ISRA

This section describes the procedure to edit ISRA deployment properties using the WebSphere Administrative Console.

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

To edit the ISRA deployment descriptor:

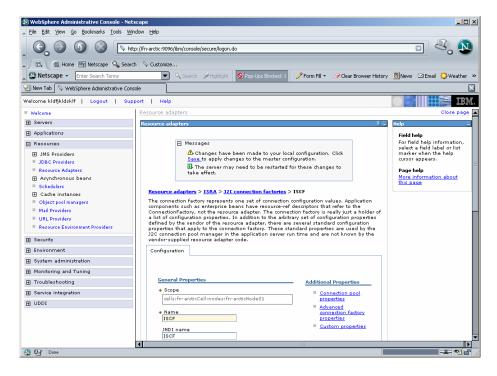
- 1. Launch a web browser window and login to the WebSphere Administrative Console or Network Deployment Administrative Console depending on whether ISRA is deployed in standalone or clustered environment.
- 2. Expand Resources node.
- **3.** Click on the deployed ISRA to edit under the **Resource Adapters** node.
- 4. Click J2C Connection Factories. The following screen appears:

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Applications ■	Resource adapters > ISRA > J2C connection factories	Field help
Resources JMS Providers JDSC Providers Sobot Providers Sobot Providers Asynchronus beans Sobot instances Object pool managers Mail Providers URL Providers Resource Environment Providers	The connection factory represents one set of connection configuration values. Application components such as enterprise beans have resource-ref descriptors that refer to the ConnectionFactory, not the resource adapter. The connection factory is really just a holder of a list of configuration properties. In addition to the arbitrary set of configuration properties properties that apply to the connection factory. These standard properties are used by the J2C connection pool manager in the application sever run time and are not known by the evendor-supplied resource adapter code.	For field help information, select a field label of list marker when the help cursor appears. Page help More information about this page
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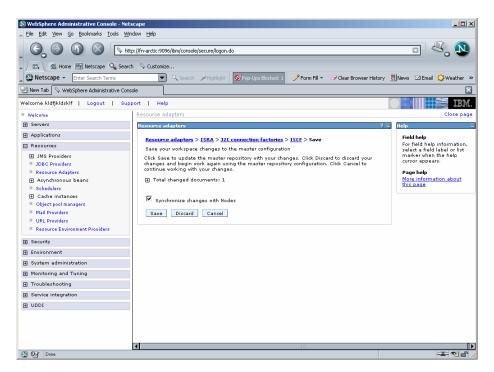
5. Click New. The following screen appears:

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Servers				
Applications	Resource adapters > ISRA > J2C connection factories			
🖻 Resources	The connection factory represents one set of connection components such as enterprise beans have resource-r	ef descriptors that refer to the		
JMS Providers JDBC Providers JDBC Providers Resource Adapters Asynchronous beans Schedulers	ConnectionFactory, not the resource adapter. The connection factory is really just a holder of a list of configuration properties. In addition to the ability set of configuration properties defined by the vendor of the resource adapter, there are several standard configuration properties that apply to the connection factory. These standard properties are used by the 12C connection pool manager in the application server run time and are not known by the vendor supplied resource adapter code. Configuration			
Cache instances Object pool managers Mail Providers URL Providers Resource Environment Providers	General Properties + Scope	The additional properties will not be available until the general properties for this	Page help More information about this page	
E Security	cells:fn-arcticCell:nodes:fn-arcticNode01	item are saved. Additional Properties		
Environment	* Name	Connection pool		
System administration	ISCF	properties		
Monitoring and Tuning	JNDI name ISCF	Advanced connection factory properties		
Troubleshooting		Custom properties		
Service integration	Description			
UDDI		Related Items		

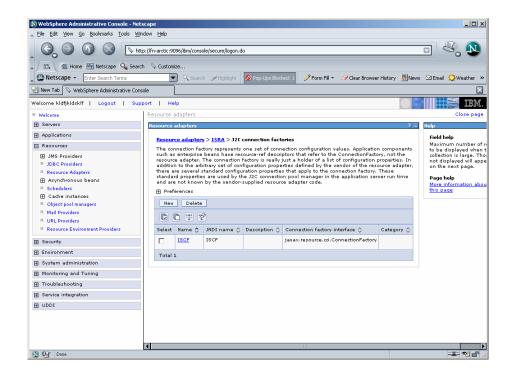
6. Provide a name for the Connection Factory. Provide the JNDI name, for example ISCF. Click Apply. A confirmation message is displayed, as shown in the screen below:



7. Click the **Save** link in the **Messages** box. The following screen appears



8. Enable Synchronize changes with Nodes, and click Save to save the changes in the master configuration. On successful creation of Connection Factory, the following screen appears.



Changing Parameters Specific to ISRA

After ISRA is deployed, some parameters of the Deployment Descriptor need to be changed to configure it for the target IS server.

To change ISRA specific parameters:

1. Navigate to **Resources > Resource Adapters**. The following screen appears:

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Welcome Welcome Servers Applications Resources JMS Providers DDC Providers Essurce Adaptors Asynchronous beans Schedulers Cache instances Object pool managers Mall Providers URL Providers URL Providers Resource Environment Providers	Efs with the ability to c server. Some resource provide their own resource server. Adapter archi- provided as a standaic as an embedded adapt file. Embedded adapt Scope: Cell=fn-arct Scope specifies th	sources such as DB2, CICS, SAP and PeopleSoft. It can provide an ommunicate with message driven beans that are configured on the adapters are provided by IBM, however, third party vendors can ure adapters. A resource adapter in planentation is provided in a se flig this file has an extension of rar. A resource adapter are be no adapter or as part of an application, in which cas dis its referred to the level at which the resource definition is visible. For detailed at scope is and how it works, rise the scope stetings help Cell In-arcticCell Browse Nodes Browse Nodes	Page help More information about bhis page
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Troubleshooting	Install RAR New	Delete	
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UDDI	Select	Name 🗘	
		ISRA	
		WebSphere Relational Resource Adapter	
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2. Under Name column, click ISRA. The following screen appears:

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3. Under Additional Properties, click J2C Connection Factories. The following screen appears:

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Applications	Resource	e adapter	> ISRA > 120	connection fact	ories		Field help			
E Resources	Resource adapters > ISRA > J2C connection factories The connection factory represents one set of connection configuration values. Application components select									
JMS Providers JDBC Providers Resource Adapters Asynchronous beans Schedulers	resourd additio there a standa and are	such as enterprise beans have resource-ref descriptors that refer to the ConnectionFactory, not the resource adopter. The connection factory is really just a holder of a list of configuration properties. In addition to the arbitrary set of configuration properties defined by the vendor of the resource adapter, there are several standard configuration properties that apply to the connection factory. These standard properties are used by the J2C connection pool manager in the application server run time and are not known by the vendor-supplied resource adapter code.								
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4. Click on the already created ISRA Connection Factory, or **ISCF** link. The following screen appears:

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Troubleshooting Service integration	+ Connection factory interface									
	javax.resource.cd.ConnectionFactory 🔽 Category									
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5. Under Additional Properties, click Custom Properties. The different parameters, which may be customized, are displayed.

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	<u>CacheRefreshInterval</u>	30	Cache refresh interval(in minutes)	false	-							
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6. To customize each parameter, click on the parameter name, modify and then save the changes. Refer to <u>Configurable ra.xml Entities</u> section, for the details.

Configurable ra.xml Entities

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

- DomainName
- OrganizationName
- LogFileName
- LoggingLevel
- LoggingMode
- LogFileSize
- PageBufferSize
- CacheRefreshInterval
- <u>CacheUser/CacheUserPassword</u>
- DeploymentInstance
- PCHLogging
- <u>AllowAnonymousUser</u>
- RPCLogging

Note It is mandatory to configure DomainName and OrganizationName properties, as the ISRA needs these properties to access 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).

DomainName

This is the name of the domain of the IS server. Click **DomainName**. The default value for DomainName is FileNetIS. It should be set according to the operational environment.

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JMS Providers JDBC Providers	Custom properties that may be required for resource providers and resource factories. For example, most database vendors require additional custom properties for data sources that access the database.	marker when the help cursor appears.
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 Asynchronous beans Schedulers 		More information about this page
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 Object pool managers 	General Properties	
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OrganizationName

This is the FileNet IS organization name. The default value for OrganizationName is FileNet. Click **OrganizationName** to change the value to the target IS server.

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JMS Providers JDBC Providers JDBC Providers Resource Adapters Schedulers Schedulers Coche instances Object pool managers Mail Providers URL Providers Resource Environment Providers	Custom properties that may be required for resource providers and resource factories. For example, most database vendors require additional custom properties for data sources that access the database. Configuration <u>Ceneral Properties</u> + Scope cells:fmaixNode01Cell:nodes:fmaixNode01	configured resource. This value indicates the configuration location for the configuration like. Page help More information about this page		
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LogFileName

The LogFileName is a string containing the name and path of the log file. Click **LogFileName** to change the value. 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.

Note If there are multiple connection factories then ISRA will maintain all logs in a single ISRA logfile, even if a separate logfile name is specified for each connection factory. WebSphere will use the name of the configured logfile for the first connection factory that is used to login after WebSphere starts up. If separate logging is desired, ISRA cannot be deployed as a resource. For every logfile (connection factories), a separate web application (ear file) with the ISRA connector bundled must be deployed. Refer to the <u>Configuring Multiple ISRA Instances with Separate</u> <u>Logging</u> section.

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LoggingLevel

This is an integer representing the level 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

Click **LoggingLevel** to change the value.

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 user encounters a problem while accessing ISRA through the application.

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	Type java.lang.Integer : Apply OK Reset Cancel	
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LoggingMode

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

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

Click LoggingMode.

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

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Service integration	Description	
	0-No Logging: 1-Console Logging:	
u	Type javalang.integer : Apply OK Reset Cancel	
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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.

Click LogFileSize. The default value of LogFileSize is 5MB.

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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.

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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. Click **Apply** after modifying the property.

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Monitoring and Tuning	Value 30	
Troubleshooting		
Service integration	Description Cache refresh interval(in minutes)	
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Note To configure ISRA for multiple IS servers; create a Connection Factory for each IS that you want to connect. DomainName and OrganizationName pair has to be distinct among the configured Connection Factories.

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.

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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.

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Configuring Multiple ISRA Instances with Separate Logging

This section explains how to deploy 2 instances of ISRA (with 2 instances of the Sample application) with separate ISRA log files for each instance.

1. Create two duplicates of ISRA.rar file and ISRASample.ear file each (one for each deployment).

Note Any naming convention may be used to name the duplicate files. For instance, the two duplicate files of ISRA.rar may be named as ISRA1.rar, and ISRA2.rar.

- 2. To bundle ISRA with the Sample Application:
 - i. Modify META-INF/application.xml in each ear file

(The contents of this file are provided below. The red text denotes text to be added or modified.)

```
<?xml version="1.0" encoding="UTF-8"?>
   <!DOCTYPE application PUBLIC "-//Sun
   Microsystems, Inc.//DTD J2EE Application
    1.3//EN"
   "http://java.sun.com/dtd/application_1_3.dtd">
        <application>
        </application>
        </applic
```

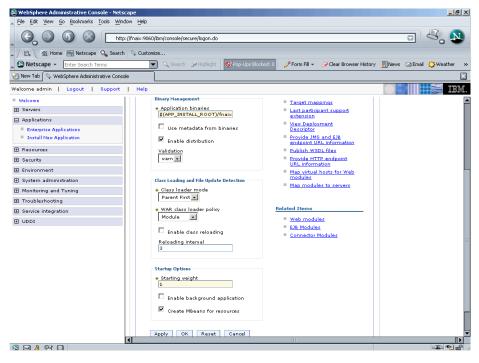
The value in the <context-root> tag in application.xml file specifies the name with which the application is accessed in the web browser. This must be different for each deployment. Here, for instance, ISRA1 and ISRA2 have been used. Therefore, the URL for each instance would be.

http://server:9080/ISRA1 http://server:9080/ISRA2

- ii. The value in the <connector> tag specifies the name of the ISRA.rar file. In this case, enter "ISRA1.rar" in the application.xml file within ISRASample1.ear and "ISRA2.rar" in the application.xml file within ISRASample2.ear.
- **3.** To install ISRASample1.ear and ISRASample2.ear, refer the section <u>Deploying the Sample Application in a Standalone Environment</u>.

Note: Name the first instance as ISRA_Sample1, and the second instance as ISRA_Sample2.

- **4.** Perform the following steps to create the connection factories for each ISRA instance within each sample application installation:
 - i. Navigate to Applications -> Enterprise Applications.
 - ii. Click the sample application for which connection factory is to be configured (for example: ISRA_Sample1). The following screen appears:



iii. Under Related Items, click the **Connector Modules** link. The following screen appears:

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iv. Click the rar file link. The following screen appears:

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v. Under Additional Properties, click **Resource Adapter** link. The following screen appears:

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E Security	adapter implementation is provided in a resource adapter archive file; this file has an extens	sion of .rar. A resource
Environment	adapter can be provided as a standalone adapter or as part of an application, in which case i embedded adapter. Use this panel to install a standalone resource adapter archive file. Emb	t is referred to as an p edded adapters are installed M t
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	Class path	
	\$(APP_INSTALL_ROOT)/fnaixNode01Ce	

- vi. Under Additional Properties, click **J2C Connection Factories** link and create a new connection factory. Refer to <u>Configuring</u> <u>Deployed ISRA</u> section for details.
- vii. After creating the connection factory, click the **Connection Factory** link. The following screen appears:

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viii. Under Additional Properties, click on the **Custom Properties** link. The following screen appears:

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				fetch size (in kilo bytes)			
		CacheRefreshInterval	30	Cache refresh interval(in	false		
				minutes)			
		ProductName	FileNet Image Services Resource Adapter	Name of the Product	false		
		ProductVersion	ISRA 3.2.1 Enterprise	Product Version	<u>false</u>		
		LogFileName	ISRA1.log	ISRA Logfile name (can include path)	false		
		LogFileSize	5	Maximum Size of ISRA LogFile (in	<u>false</u>		
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- ix. Modify the value for LogFileName. This is the log file that will be written to for this instance. For example: enter ISRA1.log for the connection factory created for the first deployment, and ISRA2.log for the second.
- x. Modify other custom properties, if required. Refer to <u>Changing</u> <u>Parameters Specific to ISRA</u> section for details.

- xi. In web.xml, under the "LIBRARY_NAMES" parameter, add the name of the created connection factory of the respective sample application.
- xii. Repeat the above steps for the other instance.
- 5. Save all changes, and restart the server.
- **6.** Login to each sample application and verify that there is a separate log file for each deployment.

PCHLogging

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

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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.

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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.

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Configuring WebSphere-Specific Parameters

Once the configurable properties are set for ISRA, the Application Serverspecific parameters need to be configured. In case of WebSphere server, the properties that need to be specified are:

- Connection Timeout
- Maximum Connections
- Minimum Connections
- Reap Time
- Unused Timeout
- Aged Timeout
- Purge Policy

The steps to configure these properties are:

- 1. Navigate to Resources > Resource Adapters > ISRA > J2C Connection Factories > ConnectionFactoryName (ISCF) > Connection Pool Properties.
- 2. Set the Connection timeout, Maximum connections, Minimum connections, Reap time, Unused timeout, Aged timeout and Purge policy.

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A description of each attribute is given below:

• **Connection Timeout:** Defines the time (in milliseconds) that the Pool Manager waits after reaching the maximum number of connections to abort and throw a ResourceAllocationException. If the maximum number of connections is not reached or is set to zero (0), the Connection Timeout will not be used.

If the Connection Timeout is zero (0), the Pool Manager will wait indefinitely.

- **Maximum Connections:** Represents 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 Connection Timeout or a ResourceAllocationException to be thrown. If Maximum Connections is set to zero (0), then the number of connections can grow indefinitely. Maximum Connections must be greater than or equal to Minimum Connections.
- **Minimum Connections:** Represents minimum number of Managed Connections maintained by the Application Server. If this number is reached, the garbage collector will not discard any Managed Connections. If the actual number of connections is lower than the value specified by the minimum connections settings, no attempt will be made to increase the number of connections to the minimum value. Minimum Connections must be less than or equal to Maximum Connections. Set this value to 0 for ISRA.
- **Reap Time:** Represents the time (in seconds) after which the garbage collector runs. The garbage collector discards all unused connections for the value specified by the **Unused timeout**.

- **Unused timeout:** Represents the time (in milliseconds) after which an unused connection is discarded. If this value is set to 0 the garbage collector is disabled.
- Aged timeout: Specifies the interval (in seconds) after which an unused, aged connection is discarded. Set the Aged timeout value higher than the Reap timeout value for optimal performance
- **Purge Policy:** Specifies how to purge connections when a stale connection or fatal connection error is detected. If user sets the purge policy for this data source object to EntirePool, all connections in the pool are marked stale. Any connection not in use is immediately closed. If user sets the purge policy for this data source object to FailingConnectionOnly, only the connection that caused the StaleConnectionException is closed.
 - Note It is recommended that user should set the values of the Reap Time and Unused timeout to ensure that WebSphere and ISRA free the unused IS server resources. The actual values of these parameters depend on the application scenario. But in general, they should be set to a low value to free the IS resources. For Example, set Unused timeout to 30000 milliseconds (30 Seconds) and Reap time to 120 Seconds (2 minutes).

Configuring WebSphere-Specific Parameter for Globalization Support

To configure the WebSphere specific parameters for globalization support:

1. Navigate to **Server > Application Server**. A list of application server instances is displayed.

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Service Integration Service Integration	
Troubleshooting Service Integration	
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2. Click the server instance, here **server1**. The following screen appears:

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Resources	server1	Settings	
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Environment	Parallel start	Settings Container Services	
System administration		Business Process	
Monitoring and Tuning	Server-specific Application Settings	Services	
Troubleshooting	Classloader policy Multiple 💌	Server messaging	
Service integration		Messaging engines	
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		 Administration 	
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3. Under Server Infrastructure, expand **Java and Process Management**, and click **Process Definition** link. The following screen appears:

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😢 New Tab 🛇 WebSphere Administrative Console	
Welcome admin Logout Support	Help
Welcome Servers Application servers Applications Resources Security Environment System administration Monitoring and Tuning Troubleshooting Service integration	General Properties Additional Properties Executable name = Java Virtual Machine Executable arguments = Environment Entries Process Execution = Process Execution Process Execution = Process Execution startCommand = Logging and Tracing
E UDDI	stopCommand stopCommandArgs terminateCommand terminateCommandArgs
🔊 🖂 🥂 🖓 🛄 Done	

4. Under Additional Properties, click **Java Virtual Machine** link. The following screen appears:

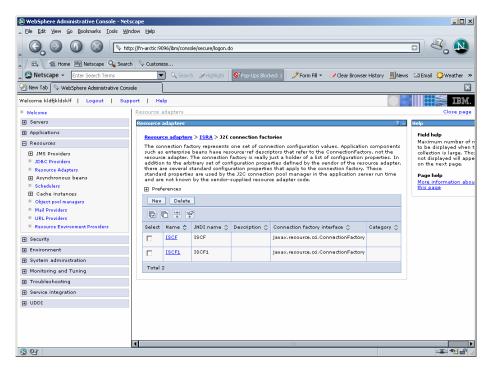
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Servers	
Application servers	
Web servers	Boot Classpath
Resources	
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Environment	
System administration	Verbose class loading
Monitoring and Tuning	Verbose garbage collection
Troubleshooting	Verbose JNI
Service integration	Initial Heap Size
I UDDI	
	Maximum Heap Size
	Run HProf
	HProf Arguments
	└─ Debug Mode
	-Djava.compiler=NONE -Xdeb
	Generic JVM arguments
	-Djava.awt.headless=true; -C
	Executable JAR file name
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5. Include -Dclient.encoding.override=UTF-8 in the General JVM argument list.

Configuring Multiple IS Servers with ISRA

To configure ISRA for accessing multiple IS servers, create a Connection Factory for each IS that user wants to connect.

The following screen shows Connection Factories configured for multiple IS servers:



4 Configuring and Deploying ISRA Sample Application

The 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 IBM WebSphere Server 6.

Note ISRA product media comes with a 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 WebSphere Application 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 and 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

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. Bundle crimson.jar within "WEB-INF\lib" directory of ISRASampleWEB.war.

IBM WebSphere Application Server does not provide the crimson implementation of DocumentBuilderFactory class.

The Sample Application uses crimson implementation of DocumentBuilderFactory class to implement the Remote printing functionality.

- 7. Update web.xml in ISRASampleWEB.war.
- 8. Update ISRASampleWEB.war in ISRASample.ear.

Deploying the Sample Application in a Standalone Environment

This section describes how to deploy the Sample Application on a WebSphere Server to access ISRA in a Standalone environment.

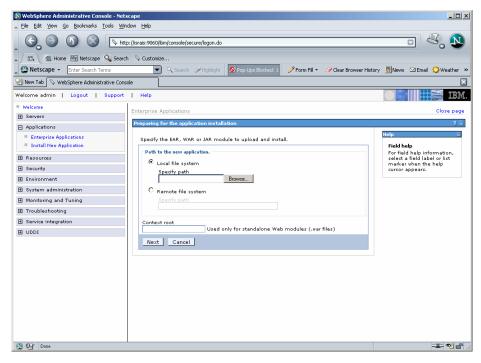
ISRA Sample Application is deployed through the WebSphere Network Manager Administrative console. The steps to deploy are:

 Start the WebSphere First Steps. Login as the root user, change directory to /<Webpshere home>/AppServer/profiles/default/firststeps and execute the

firststeps.sh script, as follows:

cd /<Websphere home>/AppServer/
profiles/default/firststeps
./firststeps.sh

- 2. Login to the WebSphere Administrative console
- Click Applications > Install New Application. The following screen appears:



4. Click **Browse** to locate the **ISRASample.ear** and deploy the Sample Application in the target environment. Also, specify a name for the Sample Application.

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Welcome admin Logout Support Help Welcome Close page Applications Close page Enterprise Applications Image: Close page Install New Applications Image: Close page Besures Security Security Security Besuring Enterprise Application Besuring Close page Besuring Close page Besuring Security Besuring Close flage Besuring Secting path Context root Used only for standalone Web modules (.var files) Context root	Netscape - Enter Search Terms	🔍 🔍 Search 🌛 Highlight 🛛 🕺 Pop-Ups Blocked: 1 🧳 Form Fill 👻 🥔 Clear Browser Hist	ory 👼 News 🖾 Email 🔅 Weather »
Welcome Close page Bervers Enterprise Applications 2 Applications Interprise Applications 2 Enterprise Applications 2 Bervers Specify the EAR, WAR or JAR module to upload and install. 7 Bervers Specify the EAR, WAR or JAR module to upload and install. 7 Berverses Increasing the the new application. 7 Berverses Increasing the the env application. 7 Berversent Specify path 1 Divisr/USRAS ample ear Browse. 1 Path to the new application. Specify path 1 Divisr/USRAS ample ear Browse. 1 Service Integration Context root Used only for standalone Web modules (.var files)	😢 New Tab 🛇 WebSphere Administrative Cons	sole	×
Servers Close page Applications Close page Applications Interpress Application installation Enterpress Applications Interpress Application Resources Specify the EAR, WAR or JAR module to upload and install. Path to the new application. Field help Security Security Bervironment Diviart/SFRASample.ear Monitoring and Tuning Specify path Deservice integration Context root UDDI Used only for standalone Web modules (.var files)	Welcome admin Logout Support	Help	
UDDI Used only for standalone Web modules (.var files)	Servers Applications Enterprise Applications Install New Application Resources Security Security Environment System administration Monitoring and Tuning	Preparing for the application installation Specify the EAR, WAR or JAR module to upload and install. Path to the new application. C Local file system Specify path C synthRAS ample ar Browse. C Remote file system	7 – Help – For field help For field help information, select a field label or list marker when the help
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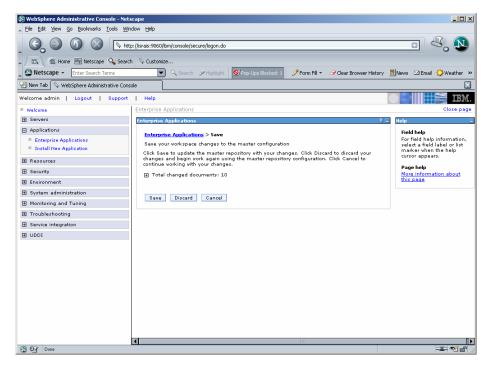
5. Click Next until the Summary screen appears.

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Applications	Install New Application			Help
 Enterprise Applications Install New Application 	Specify options for inst	alling enterprise applications and modules		Field help For field help information.
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Resources	installation options	Summary of installation options		cursor appears.
E Security	Step 2 Map	Options	Values	
Environment	modules to	Use Binary Configuration	No	
 System administration 	servers	Create MBeans for resources	Yes	
Monitoring and Tuning	<u>Step 3</u> Map virtual hosts for	Cell/Node/Server	Click here	
Troubleshooting	Web modules	Reload interval in seconds		
Service integration	-> Step 4: Summary	Enable class reloading	No	
		Process embedded configuration	No	
		Application name	ISRA_Sample	
		Validate Input off/warn/fail	warn	
		Directory to install application		
		Distribute application	Yes	
		Deploy Web services	No	
		Pre-compile JSP	No	
		Deploy enterprise beans	No	
	Previous Finish	Cancel		
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6. Click Finish. The following screen appears:

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🕘 New Tab 🛇 WebSphere Administrative C	onsole
Welcome admin Logout Supp	rt Help
Welcome	If there are enterprise beans in the application, the EJB deployment process can take several minutes. Please do not save the configuration until the process completes.
Applications Enterprise Applications Install New Application	Check the SystemOut go on the Deployment Manager or server where the application is deployed for specific information about the EJB deployment process as 1 occurs. ADMA5018t Installation of ISRA. Sample started.
	ADMA50671: Resource validation for application ISRA_Sample completed successfully.
🗄 Security	ADMA5058t Application and module versions validated with versions of deployment targets.
Environment	ADMA5005t The application ISRA_sample is configured in the WebSphere Application Server repository.
System administration	ADMAS0531: The library references for the installed optional package are created.
Monitoring and Tuning	ADMA5005t The application ISRA Sample is configured in the WebSphere Application Server repository.
 Troubleshooting Service integration 	ADMA50011: The application binaries are saved in D: WebSphere/AppServer/profiles/stefou/twisterp/92668751 workspace/cells/israisNode01CelPapplications/ISRA_Sample.eer/ISRA_Sample.eer/
I UDDI	ADMA5005L The application ISRA_sample is configured in the WebSphere Application Server repository.
	SECJ04001: Successfuly updated the application ISRA_Sample with the appContextIDForSecurity information.
	ADMA5011I: The cleanup of the temp directory for application ISRA_Sample is complete.
	ADMA5013t Application ISRA_Sample installed successfully.
	Application ISRA_Sample installed successfully.
	To start the application, first save changes to the master configuration.
	Save to Master Configuration
	To work with installed applications, click the "Manage Applications" button.
	Manage Applications
OF http://israis:9060/ibm/console/syncworksp	ce.do?syncaction=list

7. Click Save to Master Configuration. The following screen appears:



8. Click **Save** to complete the Sample Application deployment. The following screen appears:

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Install New Application	🕀 Prefere	nces			
Resources	Start	Stop Install Uninstall Update Roll	out Update Remove File Export Export DDL		
E Security	P D				
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Service integration					
E UDDI		ivtApp_	•		
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 Click Applications > Enterprise Applications. Check the desired ISRA_Sample and click Start. A message, as shown in the screen below, is displayed:

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N 07 Done						-I- • • •

Deploying the Sample Application in a Clustered Environment

This section describes how to deploy the Sample Application on an AIX WebSphere Server to access ISRA in a Clustered environment.

Note Sample Application must be deployed on an environment where session affinity is enabled.

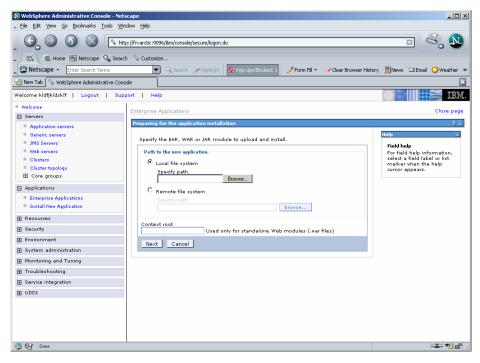
ISRA Sample Application is deployed through the WebSphere Network Manager admin console. The steps to deploy are:

1. Start the WebSphere First Steps. Login as the root user, change directory to <DeploymentManager home>/profiles/dmgr/firststeps and execute the firststeps.sh script, as follows:

cd <DeploymentManager
home>/profiles/dmgr/firststeps

```
# ./firststeps.sh
```

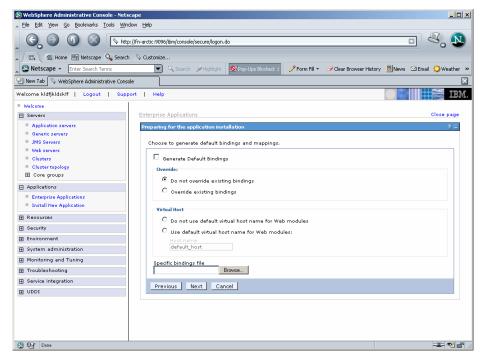
- 2. Login to the WebSphere Network Manager admin console.
- 3. Click Applications > Install New Application. The following screen appears:



4. Click **Browse** to locate the **ISRASample.ear** and deploy the Sample Application in the target environment. Also, specify a name for the Sample Application.

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E Servers		
Application servers	Preparing for the application installation	2 🗆
Generic servers	Specify the EAR, WAR or JAR module to upload and install.	Help –
JMS Servers		Field help
 Web servers Clusters 	Path to the new application.	For field help information, select a field label or list
 Clusters Cluster topology 	Cocal file system	marker when the help
Core groups	Specify path	cursor appears.
Applications	D:\jars\ISRASample.ear	
Enterprise Applications	O Remote file system	
Install New Application	Specify path Browse	
Resources		
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Environment	Next Cancel	
System administration		
Monitoring and Tuning		
Troubleshooting		
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5. Click Next. The following screen appears:



6. Click Next. The following screen appears:

WebSphere Administrative Console - Nets File Edit View Go Bookmarks Tools Wini			_ D ×
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🕗 New Tab 🔇 🛇 WebSphere Administrative Conso	le		×
Welcome kldfjkldsklf Logout Supp	ort Help		
Welcome Servers	Specify options for ins	stalling enterprise applications and modules.	Field help For field help information,
Application servers Generic servers JMS Servers Web servers Web servers Clusters Clusters Clusters topology Core groups Applications Enterprise Applications Install New Application Security Security Security Security System administration Monitoring and Tuning Monitoring and Tuning Service integration UDD1	Step 1: Select installation options Step 2: Map med 2: Map witual hosts for Web modules Step 3: Map witual hosts for Web modules Step 4: Step 3: Map witual hosts for Web modules Step 4: Step 3: Map witual hosts for Web modules Step 4: Step 3: Map witual hosts for Step 3: Map witual hosts for Med	Select installation options Specify the various options that are available to prepare and install your application. Pre-compile 35P Directory to install application Use Binary Configuration Use Binary Configuration Peploy enterprise beans Application name ISRA_Sample Create Means for resources Enable dass reloading Reload interval in seconds Deploy Web services Validate Input off/wam/fail wam Process embedded configuration	select a field label or list marker when the help cursor appears.
	•	III	
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7. Click Next. The following screen appears:

WebSphere Administrative Console - N Eile Edit View Go Bookmarks Tools	
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Application servers	Install New Application
Generic servers	Specify options for installing enterprise applications and modules.
JMS Servers	
Web servers	Step 1 Map modules to servers Select
Clusters Cluster topology	installation options Specify targets such as application servers or clusters of application servers where you want to install the mod
Core groups	targets that will serve as routers for requests to this application. The plug-in configuration file (plugin-cfg.xml
Applications	→ Step 2: Map modules to
Enterprise Applications	Servers Clusters and Servers: WebSphere:cell=fn-arcticCell.cluster=WAS6_Cluster
Install New Application	* Step 3 Map virtual
	Web
E Security Security	modules Select Module URI Server
Environment	Step 4 ISRASampleWEB ISRASampleWEB.var,WEB-INF/veb.xml WebSphere:cell=fn-arcticCell,node=fn-arctic
 System administration 	Summary
Monitoring and Tuning	Previous Next Cancel
Troubleshooting	
Service integration	
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Done Done	

8. Select the Cluster/Server from "Clusters and Servers:" list and check the module. Click **Next.** The following screen appears:

Elle Edit View Go Bookmarks Tools	<u>Window Help</u> http://fn-arctic:9096/lim/console/secure/logon.do	D
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Welcome	Enterprise Applications	Close page
Servers	Install New Application	Help
Application servers		Field help
 Generic servers JMS Servers 	Specify options for installing enterprise applications and modules.	For field help information,
Web servers	Step 1 Select Map virtual hosts for Web modules	select a field label or list marker when the help
Clusters	installation options Specify the virtual host where you want to install the Web modules	cursor appears.
Cluster topology	contained in your application. You can install Web modules on the same virtual host or disperse them among several hosts.	
Core groups	modules to	
Applications		
 Enterprise Applications Install New Application 	→ Step 3: Map virtual hosts for Web modules Select Web module Virtual host	
Resources	Step 4 ISRASampleWEB default host	
Security	Summary	
Environment	Previous Next Cancel	
System administration		
Monitoring and Tuning		
Troubleshooting		
Service integration		
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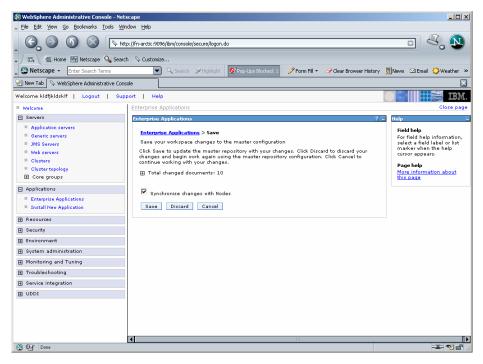
9. Click Next. The Summary screen appears.

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E Servers		orise Applications			Close pag
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Generic servers					Field help
JMS Servers	Sp	eary options for inst	alling enterprise applications and modules		For field help information select a field label or list
Web servers		<u>Step 1</u> Select installation	Summary		marker when the help
Clusters		options	Summary of installation options		cursor appears.
Cluster topology		Step 2 Map	Options	Values	
■ Core groups		modules to	Use Binary Configuration	No	
Applications			Create MBeans for resources	Yes	
Enterprise Applications		<u>Step 3</u> Map virtual hosts for Web modules	Cell/Node/Server	Click here	
Install New Application			Reload interval in seconds		
Resources	_	Step 4: Summary	Enable class reloading	No	
Security	- 1	y step 4: summary	Process embedded configuration	No	
Environment			Application name	ISRA_Sample	
System administration			Validate Input off/warn/fail	warn	
			Directory to install application		
Monitoring and Tuning			Distribute application	Yes	
Troubleshooting			Deploy Web services	No	
Service integration			Pre-compile JSP	No	
E UDDI			Deploy enterprise beans	No	
		Previous Finish	Cancel		
		rieviousrinish			

10. Click Finish. The following screen appears:

🕲 WebSphere Administrative Console - Net	
<u>File Edit View Go Bookmarks Tools Wir</u>	now Heb
. G. O. O. O. 🕟 htt	p://fn-arctik:9096/lbm/console/secure/logon.do
🖉 🗇 🔂 Home 🔤 Netscape 🔍 Searc	h 🛇 Customize
Netscape - Enter Search Terms	🔍 🔍 Search 🎾 Highlight 🕺 Pop-Ups Blocked: 1 🧳 Form Fill 👻 🧭 Clear Browser History 🗒 News 🖙 Email 🏠 Weather ᠉
New Tab Sphere Administrative Constraints	
	port Help
Welcome	If there are enterprise beans in the application, the EJB deployment process can take several minutes. Please do not save the
Servers	configuration until the process completes.
Application servers	Check the SystemOut log on the Deployment Manager or server where the application is deployed for specific information about the EJB deployment process as it occurs.
Generic servers	
JMS Servers	ADMA5016t Installation of ISRA_Sample started.
 Web servers Clusters 	ADMA5067t: Resource validation for application ISRA_Sample completed successfully.
 Cluster topology 	ADMA5058t Application and module versions validated with versions of deployment targets.
	ADMA5005t The application ISRA_Sample is configured in the WebSphere Application Server repository.
Applications	ADMA5053t The library references for the installed optional package are created.
 Enterprise Applications Install New Application 	ADMA5005I: The application ISRA_Sample is configured in the WebSphere Application Server repository.
	ADMA50011: The application binaries are saved in
Resources	/connectors/WebSphere/NetworkDeploymentManager6/profiles/dmgr/wstemp/1697235566/workspace/cells/fn-arcticCell/applications/ISRA_Sample.ear/
E Security	ADMA5005I: The application ISRA_Sample is configured in the WebSphere Application Server repository.
Environment	SECJ0400I: Successfuly updated the application ISRA_Sample with the appContextiDForSecurity information.
System administration	ADMA5011L The cleanup of the temp directory for application ISRA_Sample is complete.
Monitoring and Tuning	ADMA5013t Application ISRA_Sample installed successfully.
Troubleshooting	Application ISRA Sample installed successfully.
Service integration	Application iorkA_bample installed successfully.
H UDDI	To start the application, first save changes to the master configuration.
	Save to Master Configuration
	To work with installed applications, click the "Manage Applications" button.
	Manage Applications
_	
🔇 🕼 Done	

11. Click Save to Master Configuration. The following screen appears:



12. Enable the Synchronize Changes with Nodes check box. Click Save to complete the deployment of Sample Application. The following screen appears:

🔊 WebSphere Administrative Console - Nel 👞 Eile Edit View <u>G</u> o <u>B</u> ookmarks <u>T</u> ools <u>W</u>				<u>- 0 ×</u>
6.000	ttp://fn-arctic:9096/i	om/console/secure/logon.do	•	
🖌 🗔 🐔 Home 🔤 Netscape 🔍 Sear	ch 🛇 Customize			
Netscape - Enter Search Terms	(🔍 Search 🖋 Highlight 🛛 🚫 Pop-Ups Blocked: 1 🛛 🥖 Fo	rm Fill 👻 🥒 Clear Browser History 🛛 🗮 News 🖂 Email 🔅 We	ather »
🕘 New Tab 🔇 📎 WebSphere Administrative Cor	nsole			X
				IBM.
Welcome	Enterprise App	lications	Clo	se page
Servers	Enterprise Ap	plications	2	– Help
Application servers Generic servers JMS Servers Web servers Clusters Clusters Cluster topology El Core groups	Enterprise Applications Lists installed applications. A single application can be deployed onto multiple servers. Proferences Start Stop Install Uninstall Update Rollout Update Remove File Export Exp			
Applications	Select	Name 🗘	Status 🗘	Mc thi
Enterprise Applications		DefaultApplication.ear	9	
Install New Application		ISRA Sample	8 8	
Resources			•	
Security		StressTool	-	
Environment		acsap war	\$	
System administration	Total 4			
Monitoring and Tuning				
Troubleshooting				
Service integration				
E UDDI				
S 07	•	111		

13. Click Applications > Enterprise Applications. Enable ISRA_Sample and click Start. A message, as shown in the screen below, is displayed:

) WebSphere Administrative Console - Ne File Edit View Go Bookmarks Tools V	-			_0_		
G. O G 🛇 🕟	http://fn-arctic:9096/ibr	n/console/secure/logon.do		o 💐 🔊		
🗇 🛣 Home 🔤 Netscape 🔍 Sear	rch 🛇 Customize					
Netscape - Enter Search Terms	Q	Search 🎾 Highlight 🚺 Pop-Ups Blocked: 1 🥖 Form	Fill 👻 🥔 Clear Browser History 🛛 🗮 News	🖾 Email 🔅 Weather 🔅		
New Tab						
	ipport Help					
Welcome	Enterprise Appli			Close pag		
Servers Application servers	Enterprise Appl	ications		? – Hel		
Seneric servers Servers Veb servers Clusters Cluster topology Cluster topology Applications Enterprise Applications Install New Application	Enterprise A Lists installe	Messages Application ISRA_Sample on server AixWeb1 successfully. Application ISRA_Sample on server AixWeb2 successfully. Application ISRA_Sample started successfull WAS6_Cluster. pplications d applications A single application can be deployed o	and node fn-arctictlode01 started			
Resources	Preference	es				
Becurity Security	Start	Stop Install Uninstall Update Rollout	Update Remove File Export	Export DDL		
Environment		** **				
System administration	Select	Name 🔿	Status 🖒			
Monitoring and Tuning		DefaultApplication.ear	⇒tatus ⊈			
Troubleshooting			-			
Service integration		ISRA Sample				
I UDDI		<u>StressTool</u>	\$			
		acsap war	\$			
	Total 4					
	•	Ш				
🛐 🕼 Done						

14. To Update Web Server Plugin run the following command:

<DeploymentManager
home>/profiles/dmgr/bin/GenPluginCfg.sh

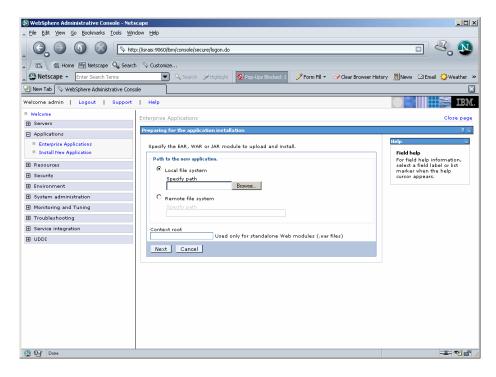
Note	The user should update Web Server Plugin after deploying
	Web/Enterprise applications.

Deployment of the FileNet Image Viewer in the Standalone Environment

The FileNet Image Viewer is used by the ISRA Sample Application to display documents of specific mime types (TIFF, JPEG and BMP). Skip this section and move to the next, if you do not want the FileNet Image Viewer configured with the ISRA Sample Application.

The steps to deploy the FileNet Image Viewer in a Standalone environment are:

1. Launch the WebSphere Administrative Console. Click **Applications >** Install New Application. The following screen appears:



2. Click Browse. Navigate through the ISRA installation directory and choose FNImageViewer.ear. Click Next, until the Summary page appears.

WebSphere Administrative Console - Net File Edit View Go Bookmarks Tools Wi				
	 :p://israis:9060/ibm/console/secu	re/logon.do		
🖉 🖬 🖌 🛣 Home 🔤 Netscape 🔍 Searc	h 🛇 Customize			
Netscape - Enter Search Terms	Search 2	Highlight 🕺 Pop-Ups Blocked: 1 🥖 For	rm Fill 🔹 🦪 Clear Browser Hist	ory 📕 News 🖾 Email 🏠 Weather
New Tab 🚫 WebSphere Administrative Con:	cole			
Velcome admin Logout Support				
Welcome				
Servers	Enterprise Applications			Close page
Applications	Install New Application			Help
 Enterprise Applications Install New Application 		talling enterprise applications and module	s.	Field help For field help information, select a field label or list
Resources	<u>Step 1</u> Select installation	Summary		marker when the help cursor appears.
E Security	options	Summary of installation options		
E Environment	Step 2 Map	Options	Values	
_	modules to servers	Use Binary Configuration	No	
System administration	Step 3 Map	Create MBeans for resources	Yes	
Monitoring and Tuning	virtual hosts for	Cell/Node/Server	Click here	
Troubleshooting	Web modules	Reload interval in seconds		
Service integration	→ Step 4: Summary	Enable class reloading	No	
UDDI E		Process embedded configuration	No	
		Application name Validate Input off/warn/fail	FNImageViewer	
		Directory to install application	warn	
		Distribute application	Yes	
		Deploy Web services	No	
		Pre-compile JSP	No	
		Deploy enterprise beans	No	
	Previous Finish	Cancel		
	•			
Done Done				-11- 🕫 🖆

3. Click Finish. The following screen appears:

WebSphere Administrative Console - Ne File Edit View Go Bookmarks Tools W	
6.000	tp://israis:9060/bm/console/secure/logon.do
🖉 🖬 🖌 🛣 Home 🔤 Netscape 🔍 Sear	ch 🛇 Customize
Netscape - Enter Search Terms	💌 🔍 Search 💴 Highlight 🕺 Pop-Ups Blocked: 1 🥜 Form Fill 👻 🖉 Clear Browser History 👼 News 🖾 Email 🔅 Weather
🕘 New Tab 🛇 WebSphere Administrative Cor	sole
/elcome admin Logout Support	Help
Welcome ∰ Servers	If there are enterprise beans in the application, the EJB deployment process can take several minutes. Please do not save the configuration until the process completes.
 Applications Enterprise Applications 	Check the SystemOut log on the Deployment Manager or server where the application is deployed for specific information about the E/B deployment process as in occurs.
Install New Application	ADMA5016L Installation of FNImageViewer started.
Resources	ADMA5067t Resource validation for application FNImageViewer completed successfully.
E Security	ADMA5058t Application and module versions validated with versions of deployment targets.
Environment	ADMAS005t: The application FNImageViewer is configured in the WebSphere Application Server repository.
System administration	ADMAS053I: The library references for the installed optional package are created.
Monitoring and Tuning Troubleshooting	ADMA5005t The application FNImageViewer is configured in the WebSphere Application Server repository.
Service integration	ADMA5001: The application binaries are saved in D:WebSphere'AppServer/profiles/default/wstempi92668751/workspace/cells/israisNode01Cell/applications/FNImageViewer.ear/FNImageViewer.ear
1 UDDI	ADMA500St: The application FNImageViewer is configured in the WebSphere Application Server repository.
	SECJ0400I: Successfully updated the application FNImageViewer with the appContextIDForSecurity information.
	ADMAS011I: The cleanup of the temp directory for application FNImageViewer is complete.
	ADMA5013t: Application FNImageViewer installed successfully.
	Application FNImageViewer installed successfully.
	To start the application, first save changes to the master configuration.
	Save to Master Configuration
	To work with installed applications, click the "Manage Applications" button.
	Manage Applications
Done 🖸	-II- 🕫 🖆

4. Click Save to Master Configuration. The following screen appears:

🕸 WebSphere Administrative Console - Net	scape	
Eile Edit View Go Bookmarks Tools Wir	ndow <u>H</u> elp	
G O O O 🔊	p://israisi9060/bm/console/secure/logon.do	• 🔍 🔊
🖉 🔂 🛣 Home 🔤 Netscape 🔍 Searc	h 🛇 Customize	
Netscape - Enter Search Terms	▼ Q. Search 🖉 Highlight 🕺 Pop-Ups Blocked: 1 🧳 Form Fill マ 🥥 Clear Browser History	INews ⊠Email ♦ Weather >
New Tab Sphere Administrative Constraints		
Welcome admin Logout Support	Help	
Welcome	Enterprise Applications	Close page
E Servers	Enterprise Applications 7	– Help
Applications	Enterprise Applications > Save	Field help
Enterprise Applications	Save your workspace changes to the master configuration	For field help information, select a field label or list
Install New Application	Click Save to update the master repository with your changes. Click Discard to discard your	marker when the help cursor appears.
Resources	changes and begin work again using the master repository configuration. Click Cancel to continue working with your changes.	
Security	Total changed documents: 11	Page help More information about
Environment		this page
 System administration 	Save Discard Cancel	
Monitoring and Tuning	Save Discard Canter	
Troubleshooting		
Service integration		
H UDDI		
🕲 📴 Done		-IF 🕫 🖶

5. Click **Save**. The following screen appears:

🔊 WebSphere Administrative Console - Net 🛛 Elle - Edit - <u>Vi</u> ew - <u>G</u> o - <u>B</u> ookmarks - <u>T</u> ools - <u>W</u> ir							;
	tp://israis:9060/ibm	/console/secure/logon.do					
🖌 🗔 🐔 Home 🔤 Netscape 🔍 Searc	h 🛇 Customize.						
Netscape - Enter Search Terms		🔍 Search 🖋 Highlight 🚺 Pop-Ups Blocked: 1	🥖 Form Fill 👻 🕜	🗲 Clear Browser Histo	ry 🗾 News	s 🖂 Email 🎲 Wea	ather :
🕘 New Tab 🚫 WebSphere Administrative Cons	sole						D
Welcome admin Logout Support	Help						IEM
Welcome	Enterprise Ap	plications				0000000	se pag
E Servers	Enterprise Ap	plications				2 -	– He
Applications	Entermine	Applications					
 Enterprise Applications Install New Application 		led applications. A single application can be de	eployed onto mult	tiple servers.			F S T
	Start	Stop Install Uninstall Update	Rollout Update	Remove File	Export	Export DDL	
🗄 Security							
Environment							
System administration	Select	Select Name 🗘 Status ሷ					
Monitoring and Tuning		DefaultApplication_	•				
Troubleshooting		FNImageViewer					
Service integration		ISRA Sample	•				
UDDI		ivtApp	•				
		guery_	•				
	Total 5						
	•	111					
🛐 🚱 Done						=II:- •	26

6. Click Applications > Enterprise Applications. Enable the FNImageViewer check box and click Start. A message, as shown in the screen below, is displayed:

🕲 WebSphere Administrative Console - Netscape	- U ×
Elle Edit View Go Bookmarks Tools Window Help	
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🔺 / 🖾, 🚳 Home 🔤 Netscape 💁 Search 🛇 Customize	
🔄 🥸 Netscape 👻 Enter Search Terms 👘 💽 🔍 Search 🦻 Highlight 🕺 Rop-Lips Blocked: 1 🥒 Form Fill 👻 🧭 Clear Browser History 🗒 News 🖾 Email 🔅 W	eather »
😢 New Tab 💊 WebSphere Administrative Console	×
Welcome admin Logout Support Help	IBM.
Welcome Enterprise Applications Cl	ose page
Servers Enterprise Applications	– Help
Applications	Fiel
Enterprise Applications	Ma: to t
Install New Application Depplication FNImageViewer on server server1 and node israisNode01 started successfully.	coll not
E Resources	on
E Security Enterprise Applications	Paç
E Environment Lists installed applications. A single application can be deployed onto multiple servers.	Moi this
System administration Preferences	
Monitoring and Tuning Start Stop Install Uninstall Update Rollout Update Remove File Export Export DDL	
E Troubleshooting	
Service integration	
E UDDI Select Name 🗘 Status 🛈	
DefaultApplication.	
EtilmageViever.	
ISRA Sample.	
L ivtApp.	
Total S	
	•2 🖆 //

Note	FNImageViewer.ear is located under the sample subfolder in
	the ISRA installation directory. FileNet Image Viewer files
	(FNImageViewer.jar), and FileNet Image Viewer
	documentation are located in the FNImageViewer\docs
	subfolder in the ISRA installation directory.

Deployment of the FileNet Image Viewer in a Clustered Environment

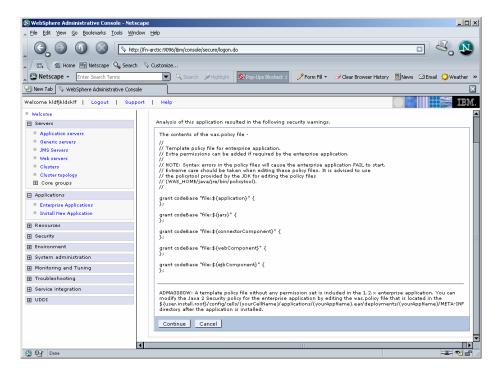
The FileNet Image viewer is used by the ISRA Sample Application to display documents of specific mime types (TIFF, JPEG and BMP). Skip this section and move to the next, if you do not want the FileNet Image Viewer configured with the ISRA Sample Application.

The steps to deploy the FileNet Image Viewer in a Clustered are:

 Launch the WebSphere Network Manager admin console. Click Applications > Install New Application. The following screen appears:

B WebSphere Administrative Console - Netso File Edit View Go Bookmarks Tools Wind	•	
	ر المراجع	
🖌 / 🖽 🖌 🏦 Home 🔤 Netscape 🔍 Search	♀ Customize	
Netscape - Enter Search Terms	🔍 🔍 Search 🌛 Highlight 🛛 📝 Pop-Ups Blocked: 1 🧳 Form Fill 👻 🥔 Clear Browser Hist	ory 👼 News 🖾 Email 🍄 Weather »
New Tab Sphere Administrative Conso	le	X
Welcome kldfjkldsklf Logout Supp	ort Help	
= Welcome	Enterprise Applications	Close page
Servers		
Application servers Generic servers JMS Servers Web servers Clusters Clusters Clusters Clusters Clusters Der groups Applications	Preparing for the application installation Specify the EAR, WAR or JAR module to upload and install. Path to the new application. C Local file system Specify path Browse.	Z - Help Field help For field help information, select a field label or list marker when the help cursor appears.
Applications Enterprise Applications	C Remote file system	
 Install New Application 	Specify path Browse	
	Browse the local machine or a remote server:	
Security	Context root Used only for standalone Web modules (.war files)	
Environment		
System administration	Next Cancel	
Monitoring and Tuning		
Troubleshooting		
 Service integration 		
I UDDI		
N Og Done		-IF • • • •

2. Click **Browse.** Navigate through the ISRA installation directory and choose FNImageViewer.ear. Click **Next**, until the **Summary** page appears.



3. Click Continue. The following screen appears:

Eile Edit View Go Bookmarks Iools Wi	ndow <u>H</u> elp		
	tp://fn-arctic:9096/ibm/console/:	secure/logon.do	
🖉 🖬 Home 🔤 Netscape 🔍 Seam	:h 🛇 Customize		
Netscape - Enter Search Terms	💌 🔍 Search	🖉 Highlight 🛛 🕺 Pop-Ups Blocked: 1 🛛 🥜 Form Fill 👻 🥔 Clear Browser Hist	ory 📕 News 🖾 Email 🔅 Weather
🕘 New Tab 🚫 WebSphere Administrative Con	sole		
	port Help		
Welcome	Specify options for ins	stalling enterprise applications and modules.	Field help For field help information,
Servers	→ Step 1: Select	Select installation options	select a field label or list marker when the help
 Application servers Generic servers 	installation options		cursor appears.
JMS Servers		Specify the various options that are available to prepare and install your application.	
Web servers	<u>Step 2</u> Map modules to	Pre-compile JSP	
Clusters	servers	Directory to install application	
 Cluster topology Core groups 	Step 3 Map virtual hosts for		
	Web modules	Distribute application	
Applications	Step 4	Use Binary Configuration	
 Enterprise Applications Install New Application 	Summary	Deploy enterprise beans	
Resources		Application name FNImageViewer	
E Security			
Environment		Create MBeans for resources	
System administration		Enable class reloading	
Monitoring and Tuning		Reload interval in seconds	
Troubleshooting		Deploy Web services	
Service integration		Deploy Web services Validate Input off/warn/fail	
UDDI -		vandate input on van rai	
		Process embedded configuration	
	Next Cancel	· ·	
	•	111	

4. Click Next. A message, as shown in the screen below, is displayed:

🕲 WebSphere Administrative Console - Nets	ape		_ _ N×
Eile Edit View Go Bookmarks Tools Win	w <u>H</u> elp		
_ 00 0 0 U	/fn-arctic:9096/ibm/console/secure/logon.do		
🔺 🖾 Home 🔤 Netscape 🔍 Search	Customize		
Netscape 👻 Enter Search Terms	💌 🔍 Search 🖋 Highlight 🧕 🧕	Ў Pop-Ups Blocked: 1 🛛 🥜 Form Fill 👻 🥔 Clear Bro	wser History 🗒 News 🖾 Email 🍄 Weather 😕
🕘 New Tab 🛇 WebSphere Administrative Cons			X
Welcome kldfjkldsklf Logout Sup	rt Help		I EM.
Welcome	Enterprise Applications		Close page
Servers			
Application servers	Install New Application		
Generic servers			
JMS Servers	Messages		
Web servers	🖪 No serve	r has been selected. Select a server.	
Clusters			
 Cluster topology Core groups 	Specify options for installing enterpri	se applications and modules.	
Core groups	Step 1 Map modules to	CONTONS	
Applications	Select	servers	
Enterprise Applications Install New Application	options Modules can be in that will serve as	uch as application servers or clusters of applicati nstalled on the same application server or dispe routers for requests to this application. The plug	rsed among several application servers. Also,
	modules to	ns which are routed through it.	
E Security		I=fn-arcticCell,cluster=WAS6_Cluster Apply	
Environment	* Step 3 Map virtual		
 System administration 	Map virtual hosts for Web		
Monitoring and Tuning	modules Select Module	URI	Server
Troubleshooting	Step 4 Summary	Viewer.war FNImageViewer.war,WEB-INF/web.xm	WebSphere:cell=fn-arcticCell,node=fn-arctic
Service integration	Summary		
I UDDI	Previous Next Cancel		
	(11	
🔊 🖭 Done			

5. Click Next. The following screen appears:

🔊 WebSphere Administrative Console - Ne Eile Edit View <u>Go B</u> ookmarks <u>T</u> ools V		_0 ×
	ktp://fn-arctic:9096/lbm/console/secure/logon.do	• 🔍 🔊
🖌 🖬 🖌 Mome 🔤 Netscape 🔍 Sea	rch 🔗 Customize	
Netscape - Enter Search Terms	🔍 🔍 Search 🏈 Highlight 🕺 Pop-Ups Blocked: 1 🧳 Form Fill 👻 🧭 Clear Browser History	📕 News 🖾 Email 🛟 Weather 😕
🛃 New Tab 🛛 📎 WebSphere Administrative Co	rsole	\sim
Welcome kldfjkldsklf Logout Su	pport Help	
= Welcome	Enterprise Applications	Close page
E Servers		
Application servers	Install New Application	Help -
Generic servers	Specify options for installing enterprise applications and modules.	Field help For field help information,
 JMS Servers Web servers 	Step 1 Select Map virtual hosts for Web modules	select a field label or list marker when the help
 Clusters 	installation	cursor appears.
Cluster topology	options Specify the virtual host where you want to install the Web modules contained in your application. You can install Web modules on the	
Core groups	Step 2 Map same virtual host or disperse them among several hosts.	
Applications	servers Apply Multiple Mappings	
 Enterprise Applications Install New Application 	Step 3: Nap virbual hosts for Web module Select Web module Virbual host	
Resources	Select web hiddle	
E Security	Step 4 FNImageViewer.war default_host 🗸	
Environment	Previous Next Cancel	
 System administration 		
Monitoring and Tuning		
Troubleshooting		
Service integration		
UDDI		
🔊 📴 🖉 Done		-11- 🔨 🖆

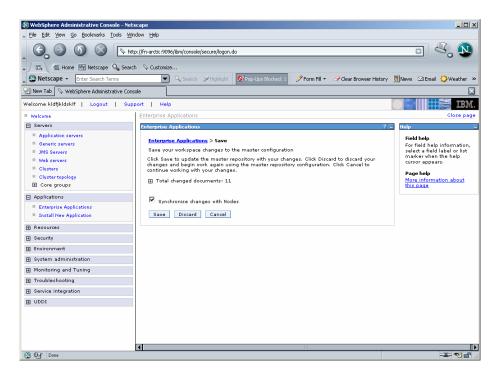
6. Click Next. The following screen appears:

WebSphere Administrative Console - Ne Elle Edit View Go Bookmarks Iools V				_ _
	ittp://fn-arctic:9096/ibm/console	/secure/logon.do		= 💐 🛽
🗇 🚮 Home 🔤 Netscape 🔍 Sea	rch 🛇 Customize			
Netscape - Enter Search Terms	Search	Highlight OPpop-Ups Blocked: 1	rm Fill 🔹 🦪 Clear Browser Hisl	tory 👼 News 🖾 Email 🏠 Weather
New Tab				
	pport Help			
Welcome	Enterprise Applications			Close pag
Servers	x			THelp
Application servers	Install New Application			
Generic servers	Specify options for in	stalling enterprise applications and module	«.	Field help For field help information
JMS Servers				select a field label or list
Web servers	<u>Step 1</u> Select installation	Summary		marker when the help cursor appears.
Clusters	options	Summary of installation options		cursor appears.
 Cluster topology Core groups 	Step 2 Map	Options	Values	
	modules to servers	Use Binary Configuration	No	1
Applications		Create MBeans for resources	Yes	1
Enterprise Applications	<u>Step 3</u> Map virtual hosts for	Cell/Node/Server	Click here	111
Install New Application	Web modules	Reload interval in seconds		1
Resources	-> Step 4: Summar	Enable class reloading	No	
Security		Process embedded configuration	No	
Environment		Application name	FNImageViewer]
System administration		Validate Input off/warn/fail	warn	
Monitoring and Tuning		Directory to install application		
Troubleshooting		Distribute application	Yes	
		Deploy Web services	No	
Service integration		Pre-compile JSP	No	
E UDDI		Deploy enterprise beans	No	
	Previous Fini:	sh Cancel		
		Caller		
🛐 🕼 Done	•	111		-11- 🕫 🚽

7. Click **Finish**. The following screen appears:

WebSphere Administrative Console - File Edit View Go Bookmarks Tools	
©, © © © I	· · · · · · · · · · · · · · · · · ·
🖉 🔂 Home 🔤 Netscape 🔍 S	earch 🛇 Customize
Netscape - Enter Search Terms	🔍 🔍 Search 🎾 Highlight 🕺 Pop-Ups Blocked: 1 🧳 Form Fill 👻 🥔 Clear Browser History 👼 News 🖾 Email 🔅 Weather
🕘 New Tab 🔇 🛇 WebSphere Administrative	Console
/elcome kldfjkldsklf Logout	Support Help
Welcome	If there are enterprise beans in the application, the EJB deployment process can take several minutes. Please do not save the configuration until the process completes.
Application servers Generic servers	Check the SystemOut.log on the Deployment Manager or server where the application is deployed for specific information about the EJB deployment process as it occurs.
 Generic servers JMS Servers 	ADMAS016L Installation of FNImageViewer started.
 Web servers Clusters 	ADMA5067I: Resource validation for application FNImageViewer completed successfully.
 Cluster topology Core groups 	ADMAS058L Application and module versions validated with versions of deployment targets. ADMAS005L The application FNImageViewer is configured in the WebSphere Application Server repository.
Applications	ADMAS0531 The library references for the installed optional package are created.
Enterprise Applications	ADMA5005I: The application FNImageViewer is configured in the WebSphere Application Server repository.
Install New Application	ADMA5001t The application binaries are saved in
Resources	/connectors/MebSphere/NetworkDeploymentManager6/profiles/dimgr/wstemp/1697235566/workspace/cells/fn-arcticCell/applications/FNImageViewer.
■ Security	ADMAS005I: The application FNImageViewer is configured in the WebSphere Application Server repository.
Environment	SECJ0400I: Successfuly updated the application FNImageViewer with the appContextIDForSecurity information.
System administration	ADMAS011L The cleanup of the temp directory for application FNImageViewer is complete.
Monitoring and Tuning	ADMA5013t Application FNImageViewer installed successfully.
Troubleshooting Service integration	Application FNImageViewer installed successfully.
UDDI	To start the application, first save changes to the master configuration.
	Save to Master Configuration
	To work with installed applications, click the "Manage Applications" button.
	Manage Applications
Opp http://fn-arctic:9096/ibm/console/syncwork	kspace.do?syncaction=list 🔤 🔐

8. Click Save to Master Configuration. The following screen appears:



 Enable the Synchronize Changes with Nodes check box. Click Save to complete the deployment of FileNet Image Viewer. The following screen appears:

		bm/console/secure/logon.do	•	Ð
🖬, 🚮 Home 🔤 Netscape 🔍 Searc				
Netscape - Enter Search Terms		🔍 Search 🔗 Highlight 🛛 😒 Pop-Ups Blocked	🗄 1 🥜 Form Fill 👻 🥜 Clear Browser History 📃 News 🖾 Email 🔅 We	
New Tab 🛇 WebSphere Administrative Con	sole			
come kidfjkidskif Logout Sup				
Velcome	Enterprise App	lications	Clo	se pa
Servers	Enterprise Ap	plications	?	- 8
 Application servers Generic servers 		Applications		
JMS Servers		ed applications. A single application can b	oe deployed onto multiple servers.	
Web servers	Preferen			
Clusters Cluster topology	Start	Start Stop Install Uninstall Update Rollout Update Remove File Export Export DDL		
Core groups	ØD			
Applications	Select	Name 🗘	Status 🖏	
Enterprise Applications	П	DefaultApplication.ear	•	
Install New Application		FNImageViewer	*	
Resources				
Security		ISRA Sample	•	
Environment		StressTool	÷	
System administration		acsap war	-⇒	
Monitoring and Tuning	Total 5			
Troubleshooting				
Service integration	il i			

10. Click Applications > Enterprise Applications. Enable the FNImageViewer check box and click Start. A message, as shown in the screen below, is displayed:

WebSphere Administrative Console - Net File Edit View Go Bookmarks Tools Wir			_ 0
G O O O 🕞	:p://fn-arctic:9096/ibi	n/console/secure/logon.do	
/ 🖬, 🐔 Home 🔤 Netscape 🔍 Searc	h 🛇 Customize		
Netscape - Enter Search Terms	Q	, Search 🎾 Highlight 🕺 Pop-Ups Blocked: 1 🧳 Form F	Fill 🔻 🥒 Clear Browser History 🗒 News 🖂 Email 🔅 Weather
New Tab Sphere Administrative Const	sole		
//////////////////////////////////////	port Help		
Welcome	Enterprise Appl	cations	Close page
Servers	Enterprise App		? – H
Generic servers Generic serve	Preference Start	d applications. A single application can be deployed or es Stop Install Uninstall Update Rollout	2 and node fn-ardicklode01 started IIy on all the servers in cluster Ito multiple servers.
System administration		** 🖓	
Monitoring and Tuning	Select	Name 🗘	Status 💁
Troubleshooting		DefaultApplication.ear	•
Service integration		FNImageViewer	⇒
E UDDI		ISRA Sample	⇒
		StressTool	⇒
		acsap var	↔
	Total 5		
	•	111	
🕲 📴 Done			-II- 🕫 🖆

11. To Update Web Server Plugin run the following command:

<DeploymentManager
home>/profiles/dmgr/bin/GenPluginCfg.sh

Note FNImageViewer.ear is located under the sample subfolder in the ISRA installation directory. FileNet Image Viewer files (FNImageViewer.jar) and FileNet Image Viewer documentation is located in the FNImageViewer subfolder in the ISRA installation directory.

Session Affinity

Session Affinity is a mechanism, which allows a user to connect directly to the same Application Server unless and until the current session is invalidated or the application server instance, where the session started first is failed.

If this option is not enabled in an application server then, browser requests would be distributed across all application server instances in a cluster. The impact of requests being distributed in this fashion would depend on whether distributed or local sessions were in use.

In an environment using distributed sessions, the application server would make an out-of-process request to retrieve the session object from the copy of the session object stored either in memory in another application server or in a database. In an environment employing local sessions, the getSession () method call in the application code would result in the creation of a new session object, with the loss of any data previously stored in session for that client.

Session Affinity in WAS

Session affinity is enabled by default in WebSphere V6. In a clustered environment, WAS provides affinity to a server by appending the server ID to the session ID that is contained in the JSESSIONID cookie or URL rewrite. This information is used by the HTTP server plug-in to dispatch the request to the correct server.

The default plug-in generated by WAS

```
<ServerCluster CloneSeparatorChange="false"</pre>
LoadBalance="Round Robin" Name="ISRACLuster"
PostSizeLimit="-1" RemoveSpecialHeaders="true"
RetryInterval="60">
      <Server CloneID="10uclgec5" ConnectTimeout="0"
ExtendedHandshake="false" LoadBalanceWeight="2"
MaxConnections="-1" Name="fnaix_ISRAServer1"
WaitForContinue="false">
         <Transport Hostname="fnaix" Port="9081"
Protocol="http"/>
         <Transport Hostname="fnaix" Port="9444"
Protocol="https">
            <Property Name="keyring"
Value="/software/WebSphere/DeploymentManager/etc/plugin-
key.kdb"/>
            <Property Name="stashfile"
Value="/software/WebSphere/DeploymentManager/etc/plugin-
key.sth"/>
         </Transport>
      </Server>
      <Server CloneID="10uc1gf31" ConnectTimeout="0"
ExtendedHandshake="false" LoadBalanceWeight="2"
MaxConnections="-1" Name="fnaix_ISRAServer2"
WaitForContinue="false">
         <Transport Hostname="fnaix" Port="9082"
Protocol="http"/>
         <Transport Hostname="fnaix" Port="9445"
Protocol="https">
            <Property Name="keyring"
Value="/software/WebSphere/DeploymentManager/etc/plugin-
key.kdb"/>
            <Property Name="stashfile"
Value="/software/WebSphere/DeploymentManager/etc/plugin-
key.sth"/>
         </Transport>
      </Server>
      <PrimaryServers>
         <Server Name="fnaix ISRAServer1"/>
         <Server Name="fnaix_ISRAServer2"/>
      </PrimaryServers>
   </ServerCluster>
```

Disabling Session Affinity on WAS:

In order to disable the session affinity CloneID should be removed from each sever entry in pug-in as follows.

```
<ServerCluster CloneSeparatorChange="false"
            LoadBalance="Round Robin" Name="ISRACLuster"
            PostSizeLimit="-1" RemoveSpecialHeaders="true"
            RetryInterval="60">
      <Server CloneID="10uclgec5" ConnectTimeout="0"
ExtendedHandshake="false" LoadBalanceWeight="2"
MaxConnections="-1" Name="fnaix_ISRAServer1"
WaitForContinue="false">
         <Transport Hostname="fnaix" Port="9081"
Protocol="http"/>
         <Transport Hostname="fnaix" Port="9444"
Protocol="https">
            <Property Name="keyring"
Value="/software/WebSphere/DeploymentManager/etc/plugin-
key.kdb"/>
            <Property Name="stashfile"
Value="/software/WebSphere/DeploymentManager/etc/plugin-
key.sth"/>
         </Transport>
      </Server>
      <Server CloneID="10uclgf31" ConnectTimeout="0"
ExtendedHandshake="false" LoadBalanceWeight="2"
MaxConnections="-1" Name="fnaix ISRAServer2"
WaitForContinue="false">
         <Transport Hostname="fnaix" Port="9082"
Protocol="http"/>
         <Transport Hostname="fnaix" Port="9445"
Protocol="https">
            <Property Name="keyring"
Value="/software/WebSphere/DeploymentManager/etc/plugin-
key.kdb"/>
            <Property Name="stashfile"
Value="/software/WebSphere/DeploymentManager/etc/plugin-
key.sth"/>
         </Transport>
      </Server>
      <PrimaryServers>
         <Server Name="fnaix ISRAServer1"/>
         <Server Name="fnaix_ISRAServer2"/>
      </PrimaryServers>
   </ServerCluster>
```

WAS provides two persistence mechanisms for maintaining session state

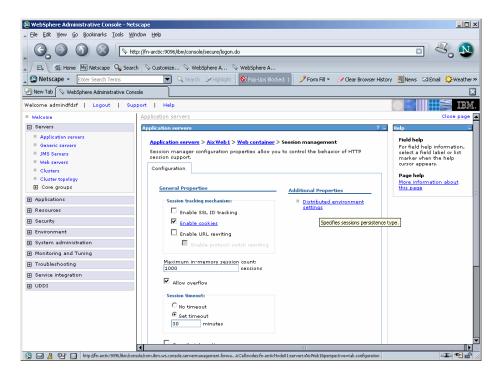
- Database
- Memory to memory.

For replicating the session (memory to memory) across multiple application server instances following setup will be done on WAS.

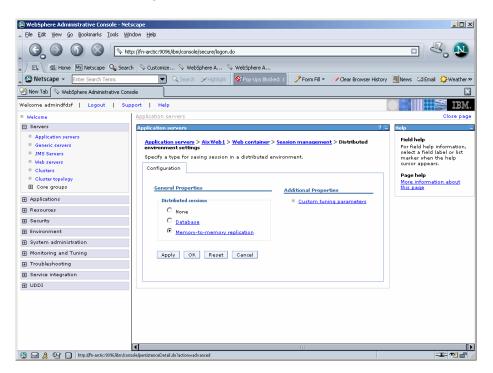
1. Click Application servers -> <Server instance> ->Web container. The following screen appears:

🔕 WebSphere Administrative Console - Net	scape
_ Eile Edit Yiew Go Bookmarks Iools Wir	idow Help
	p://fr-arctic:9096/bm/console/secure/logon.do
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Netscape - Enter Search Terms	🗨 🔍 Search 🖉 Highlight 🚺 Pop-Ups Blocked: 1 🧳 Form Fill 👻 🧭 Clear Browser History 👼 News 🖾 Email 👶 Weather »
🕘 New Tab 🛇 WebSphere Administrative Cons	iole 🛛 🕅 🕅
Welcome admindfdsf Logout Sup	port Help
= Welcome	Application servers Close page
E Servers	Application servers ? – Help –
Application servers Generic servers Mos Servers Web servers Cluster Cluster topology Core groups Applications Resources Security Environment System administration Monitoring and Tuning Troubleshooting	Application servers > Aix Web 1 > Web container Configure the Web container Configuration General Properties Default virtual host: default_host: Web container transport chains Field help Second Properties Default virtual host: @ Gustom Properties @ Web container transport chains @ Enable servlet caching B service to cancel
 Service integration 	
UDDI	
🕲 🖂 🧶 🖭 📄 http://fn-arctic:9096/ibm/con	sole/com.ibm.ws.console.servermanagement.forwaicCell modes fm-arcticNode01iservers:AixWeb18perspective=tab.configuration 💷 🚭 🔐

2. Under Additional Properties, click **Session Management** link. The following screen appears:



3. Under Additional Properties, click **Distributed Environment Settings** link. The following screen appears:



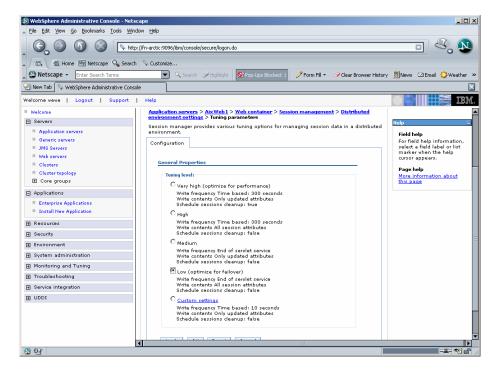
4. Enable **Memory to Memory Replication** radio button and click on the same link. The following screen appears:

WebSphere Administrative Console - Ne	•	<u>_</u> _×
	tp://fn-arctic:9096/bm/console/secure/logon.do	- 4. 1
	th 🛇 Customize 🛇 WebSphere A	
Netscape - Enter Search Terms	🔄 🔍 Search 🖉 Highlight 🕺 Pop-Ups Blocked: 1 🧳 Form Fill 👻 🧭 Clear Browser His	tory 👼 News 🖾 Email 🔅 Weather »
👻 New Tab 🛇 WebSphere Administrative Cor	sole	×
Welcome admindfdsf Logout Su	oport Help	
= Welcome	Application servers	Close page
E Servers	Application servers	? - Help -
Application servers Generic servers Generic servers Web servers Clusters Cluster topology Core groups	Application servers > Aix Web 1 > Web container > Session management > Distributed environment settings > Memory-to-memory replication Configure memory-to-memory replication for failure recovery. Configuration Configuration	Field help For field help information, select a field label or list marker when the help cursor appears. Page help More information about this page
	* Replication domain	
	WAS6_Cluster -	
	* Replication mode	
Environment	Both dient and server 💌	
 System administration 	Apply OK Reset Cancel	
Monitoring and Tuning		
Troubleshooting		
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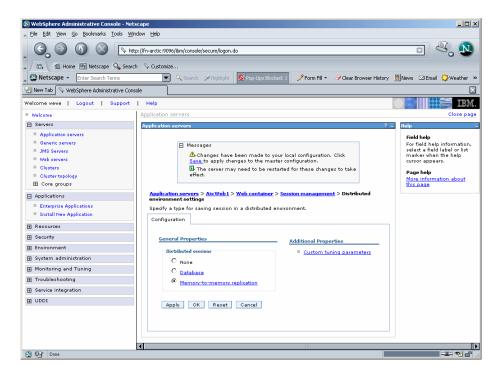
5. Select **Replication domain** and click **Apply**. Then click **OK**. A message, as shown in the screen below, is displayed:

🕲 WebSphere Administrative Console - Nets	scape	
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_ G O O O N	p://fn-arctic:9096/bfm/console/secure/logon.do	
🔺 🖬, 🐔 Home 🔤 Netscape 🔍 Search	h 🛇 Customize	
Netscape - Enter Search Terms	💌 🔍 Search 🎾 Highlight 🕺 Pop-Ups Blocked: 1 🧳 Form Fill 👻 🧭 Clear Browser Histo	ory 📃 News 🖾 Email 🔅 Weather »
😢 New Tab 🛇 WebSphere Administrative Cons	ole	×
Welcome wewe Logout Support	Help	
= Welcome	Application servers	Close page
E Servers	Application servers	? – Help –
Application servers Generic servers Generic servers Mos Servers Clusters Clusters Cluster topology Core groups	 Messages Changes have been made to your local configuration. Click Save to apply changes to the master configuration. The server may need to be restarted for these changes to take effect. 	Field help For field help information, select a field label or list marker when the help cursor appears. Page help More information about this page
Applications	Application servers > AixWeb1 > Web container > Session management > Distributed environment settings	
 Enterprise Applications Install New Application 	Specify a type for saving session in a distributed environment. Configuration	
Resources		
🕀 Security	General Properties Additional Properties	
Environment	Distributed sessions Custom tuning parameters	
System administration	C None	
Monitoring and Tuning	O Database	
Troubleshooting	Memory-to-memory replication	
Service integration		
E UDDI	Apply OK Reset Cancel	
🔊 🕬 Done		

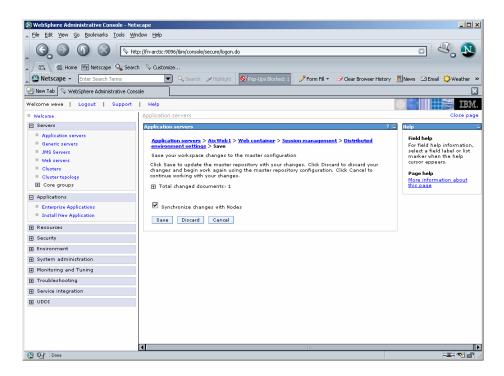
6. Under Additional Properties, click **Custom Tuning Parameters** link. The following screen appears:



7. Select Low (optimize for failover) radio button and click Apply and then click OK. A message, as shown in the screen below, is displayed:



8. Click the **Save** link in the **Messages** box. The following screen appears:



9. Enable the Synchronize Changes with Nodes check box and click Save button.

Note The process should be repeated for all the cluster members to maintain the session state.

Testing the Sample Application

After the ISRA Sample Application is started, the steps to verify the deployment or to 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 WebSphere server, the default port number is 9080. The default context_root of the Sample Application is ISRA.

SRA 3.2.1 Sample Application - Netscape	
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Netscape - Enter Search Terms	💌 🔍 Search 🖉 Highlight 🛛 💇 Pop-Ups Blocked: 1 🛛 🥜 Form Fill 👻 📿 Clear Browser History 👼 News 🗠 Email 🔅 Weather 🛸
New Tab	
FileNer	ISRA 3.2.1 Sample Application
Search T Browse T Queue	Maintenance Meta Data
	Please Login to FileNet Library
	Library : ISCF
	UserName :
	Password : State Login
	LDAP Authentication
Disclaimer:	
This sample application is intended solely for illusi deployment. This sample application is to be used	rative purposes, and you should not expect this sample application to perform useful work, or to be used for production I strictly as reference material.
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🔇 🖳 Done	

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

SISRA 3.2.1 Sample Application - Ne	tscape	
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6000	http://fn-arctic/ISRA/web/SearchWA5.jsp	- 4, 1
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🚬 🕸 Netscape 👻 Enter Search Terms	s 💽 🔍 Search 🎾 Highlight 🕺 Pop-Ups Blocked: 1 🧳 Form Fill 👻 🥔 Clear Browser Hist	ory 👼 News 🖾 Email 👶 Weather »
😢 New Tab 🛇 ISRA 3.2.1 Sample Appli	ication	\boxtimes
FileNet	ISRA 3.2.1 Sample Application	🕸 🕸 – jš.
Search Browse	Queue Maintenance Meta Data	
Search for Documents :		User : SysAdmin Library : ISCF
Search for Documents :		
	select F_DOCNUMBER, F_DOCFORMAT, F_PAGES from FnDocument where F_DOCNUMBER > 1	
Query :		
	*	
Folder Name :		
Max Rows :	16 *	
	P Search Documents	
S Og Done		-IF

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 - Idap_export and Idap_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 parameter options:

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

• 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]</host>	IS host or domain name , organization.
/u <id> (used with /p)</id>	Authorized IS user name
/p" <pwd>" (used with /u)</pwd>	Encrypted IS user password.
/i <file></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

LdapImpIClassName

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 Server 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.

LdapImpIClassString

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

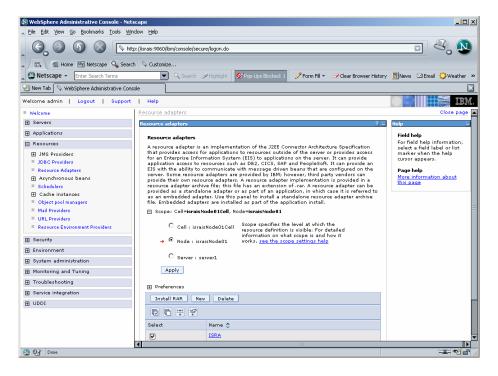
6 Undeployment

This section describes the undeployment procedure for the ISRA and the Sample Application from the WebSphere Server.

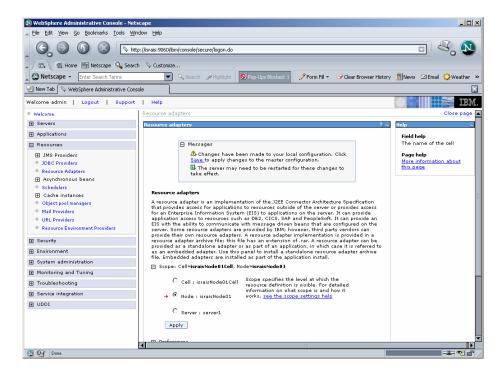
Undeployment of ISRA in a Standalone Environment

To undeploy ISRA using the Administrative Console:

1. Click **Resources > Resource Adapters**. The following screen appears:



2. Enable the **ISRA** check box. Click **Delete.** A message, as shown in the screen below, is displayed:



3. Click the Save link in the Messages box.

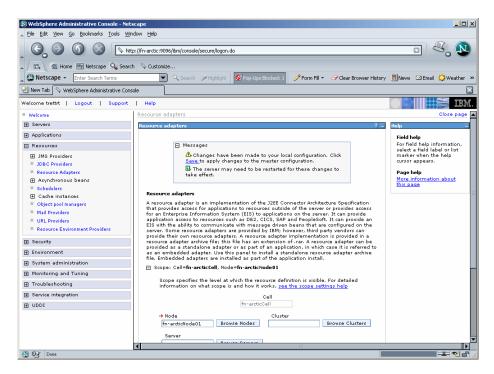
Undeployment of ISRA in a Clustered Environment

To undeploy ISRA using the Administrative Console:

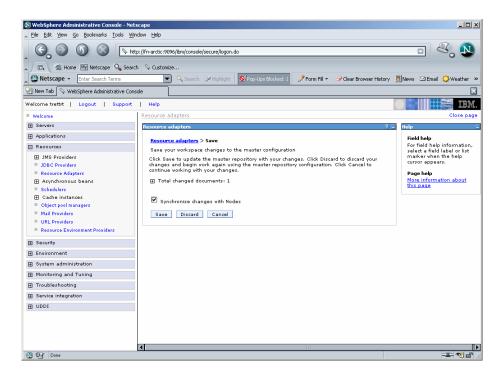
1. Click **Resources** > **Resource Adapters**. The following screen appears:

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🔺 🗇 🏦 Home 🔤 Netscape 🔍 Search	♀ Customize		
Netscape - Enter Search Terms	💌 🔍 Search 💈	🎾 Highlight 🛛 🕺 Pop-Ups Blocked: 1 🥜 Form Fill 👻 🥔 Clear Browser History	/ 👼 News 🖾 Email 🔅 Weather »
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Welcome Servers Applications Resources	server. Some resource provide their own reso resource adapter archi provided as a standalc as an embedded adap	communicate with message onven beans mat are conquired on the adapters are provided by 18th Noveen, thind party vendors can urce adapters. A resource adapter implementation is provided in a velocity of the set of the set of the set of the set of the velocity of the set of the set of the set of the set of the the. Use this parel to install a standalone resource adapter archive is are installed as part of the application install.	Page help More information about this page
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JDBC Providers Resource Adapters Asynchronous beans Schedulers Cache instances	information on wi	ne level at which the resource definition is visible. For detailed nat scope is and how it works, <u>see the scope settings help</u> Cell [fn-arcticCell	
Object pool managers Mail Providers URL Providers Resource Environment Providers	→ Node fn-arcticNode01 Server	Cluster Browse Clusters	
	Apply		
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System administration	Preferences		
Monitoring and Tuning	Install RAR New	/ Delete	
Troubleshooting	D 🕆 😤		
Service integration	Select	Name 🗘	
I UDDI		ISRA	
		WebSphere Relational Resource Adapter	
	Total 2		
S OF Done	۹		

2. Enable the **ISRA** check box. Click **Delete.** A message, as shown in the screen below, is displayed:



3. Click the Save link in the Messages box.



4. Enable the Synchronize Changes with Nodes check box and click Save.

Undeployment of the Sample Application in a Standalone Environment

Undeploying the ISRA Sample Application in a standalone environment on a WebSphere server will physically remove the Sample Application files.

1. Click **Applications** > **Enterprise Applications**. The following screen appears:

							_
	cp://israis:9060/ibm/	/console/secure/logon.do					N
/ 🖽 🖌 🏦 Home 🔤 Netscape 🔍 Searc	th 🔍 Customize						
Netscape - Enter Search Terms		🔍 Search 🖋 Highlight 🚺 🔗 Pop-Ups Blocked: 1	🥖 Form Fill 👻 🦪	Clear Browser Histor	ry 📃 News	: 🖂 Email 🔅 We	ather
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relcome admin Logout Support	Help						IBN
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Applications	Fahamaian	Applications					
Enterprise Applications		Applications led applications. A single application can be de	ploved onto multip	le servers.			
Install New Application	+ Preferer						
Resources	Start	Stop Install Uninstall Update	Rollout Update	Remove File	Export	Export DDL	
± Security							
± Environment		** *					
System administration	Select	Name 🗘		Status 👲			
Monitoring and Tuning		DefaultApplication	•				
Troubleshooting		FNImageViewer	•				
Service integration	V	ISRA Sample	•				
UDDI		ivtApp_	٠				
		guery_	€				
	Total 5						

2. Enable the **ISRA_Sample** check box. Click **Stop**. A message, as shown in the screen below, is displayed:

WebSphere Administrative Console - Nets Eile Edit Wew Go Bookmarks Tools Win	
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🖉 🖽 🖌 🚮 Home 🔤 Netscape 🔍 Search	🛇 Customize
Netscape - Enter Search Terms	💌 🔍 Search 🖉 Highlight 🕺 Pop-Ups Blocked: 1 🥜 Form Fill 🔻 🧭 Clear Browser History 👼 News 🖙 Email 🔅 Weather
🕘 New Tab 🛇 WebSphere Administrative Cons	le
Welcome admin Logout Support	
Welcome	Enterprise Applications Close pa
Servers	Enterprise Applications ? - Hi
Applications	
 Enterprise Applications Install New Application 	Messages Application ISRA_Sample on server server1 and node israisNode01 stopped
Resources	successfully.
E Security	Enterprise Applications
Environment	Lists installed applications. A single application can be deployed onto multiple servers.
System administration	Preferences
Monitoring and Tuning	Start Stop Install Uninstall Update Rollout Update Remove File Export Export DDL
Troubleshooting	
Service integration	Select Name 🗘 Status 🗘
UDDI	DefaultApplication
	L ivtap.
	auery.
	Total 5
2 OF	

3. Enable the **ISRA_Sample** check box once again, and click **Uninstall**. A message, as shown in the screen below, is displayed:

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Applications	Enterprise Applications 7 - 1
Enterprise Applications	Messages
Install New Application	Changes have been made to your local configuration. Click <u>Save</u> to apply changes
I Resources	to the master configuration.
Security	 The server may need to be restarted for these changes to take effect. ISRA Sample was uninstalled successfully.
Environment	Lb ISKA_Sample was uninstalled successfully.
 Environment E System administration 	Enterprise Applications
System administration Monitoring and Tuning	Lists installed applications. A single application can be deployed onto multiple servers.
Troubleshooting	Preferences
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E UDDI	
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	Select Name 🗘 Status ሷ
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4. Click the Save link in the Messages box.

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

Undeployment of the Sample Application in a Clustered Environment

Undeploying the ISRA Sample Application in a clustered environment on a WebSphere server will physically remove the Sample Application files.

1. Click **Applications** > **Enterprise Applications**. The following screen appears:

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🔇 🕼 http://fin-arctic:9096/ibm/console/navigatorCn	1.2			-II- 🔨 🖆

2. Enable the **ISRA_Sample** check box. Click **Stop**. A message, as shown in the screen below, is displayed:

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Applications						
Enterprise Applications		🖻 Messages				
Install New Application		Application ISRA_Sample on server successfully.	Ai×Web1 and node	fn-arcticNode01 s	topped	
Resources		Application ISRA_Sample on server	Ai×Web2 and node	fn-arcticNode01 s	topped	
E Security		successfully. Application ISRA Sample stopped s	uccessfully on all th	e servers in cluste		
Environment		WAS6_Cluster.	accessionly on an o	ie servers in cluste		
System administration						
Monitoring and Tuning	Enterprise /		1			
Troubleshooting	F Preferen	ed applications. A single application can be de	pioyed onto multip	ie servers.		
Service integration	Start	Stop Install Uninstall Update	Rollout Update	Remove File	Export	Export DDL
I UDDI			Kollout Update	Kemove File	Export	Export DDL
	GO	*** **				
	Select	Name 🗘	Status	<u>2</u>		
		DefaultApplication.ear	€			
		<u>FNImageViewer</u>	€			
		ISRA Sample	8			
		StressTool	\$			
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	Total 5					

3. Enable the **ISRA_Sample** check box once again, and click **Uninstall**. A message, as shown in the screen below, is displayed:

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= Welcome	Enterprise Applications Close page
Applications	Uninstall Application
Enterprise Applications Install New Application	Click the "OK" button below to remove the following application(s). If you do not wish to remove the applications, click the "Cancel" button to return to the prior page.
Resources	Name
E Security	ISRA_Sample
Environment	
System administration	OK Cancel
Monitoring and Tuning	
Troubleshooting ■	
Service integration	
E UDDI	
🔇 🖓 Done	

4. Click **OK** to remove the application(s), and then click **Save**. The following screen appears:

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Applications	Enterprise Applications > Save	Field help
 Enterprise Applications Install New Application 	Save your workspace changes to the master configuration	For field help information, select a field label or list
	Click Save to update the master repository with your changes. Click Discard to discard your changes and begin work again using the master repository configuration. Click Cancel to	marker when the help cursor appears.
Resources	continue working with your changes.	Page help
🗄 Security		More information about
Environment		this page
System administration	Synchronize changes with Nodes	
Monitoring and Tuning	Save Discard Cancel	
Troubleshooting	Jave Discard Canter	
Service integration		
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5. Enable Synchronize Changes with Nodes check box and click Save. The application gets uninstalled.

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S Of javascript:showHideNavigation("environment"))					- I - N e //				

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

7 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.

The steps to specify the alias in the hosts file are:

- 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 system directory.
- 2. Open the hosts file with a preferred text editor. If a hosts file does not exist, create a new file using a preferred text editor.
- 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. When specifying the domain-organization name, follow these rules:
 - 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 is FileNet, and its IP address is 123.45.6.78, the hosts file entry will be:

123.45.6.78 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

FileNet End User Software License

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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>
    <config-property>
     <description>Parameter to enable PCH Logging in ISRA</description>
     <config-property-name>PCHLogging</config-property-name>
     <config-property-type>java.lang.String</config-property-type>
     <config-property-value>Disabled</config-property-value>
     </config-property>
    <config-property>
     <description>LDAP Anonymous user login flag</description>
     <config-property-name>AllowAnonymousUser</config-property-name>
     <config-property-type>java.lang.Boolean</config-property-type>
     <config-property-value>true</config-property-value>
     </config-property>
    <config-property>
     <description>0-Exceptions and Warnings; 1-Info; 2-Debug
        Level</description>
     <config-property-name>RPCLogging</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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