

ASF 3.3 with IMS Document Connect for ASF

Installation on AIX Server
Using WebSphere Application Server V5.1

Server-to-Host Connection using
IMS Connect

Edition: 1.1

31 March 2005

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1 Prerequisites

1. WebSphere Application Server (WAS) V5.1 has been installed, is operational, and has been started

Note: The installation path is assumed to be
`/usr/WebSphere/AppServer51`

2. IBM HTTP Server (Version 1.3.26, or later) has been installed, is operational, and has been started

Note: The installation path is assumed to be
`/usr/IBMHttpServer`

3. IMS Connect has been installed and the connections to the host (IMS) are available. IMS Connector for Java (runtime portion for AIX) has been installed.

Note: The IMS Connector for Java installation path is assumed to be
`/opt/IBM/IMSConnector/IBM/IMSICO`

4. Document Connect for ASF (DC4ASF) has been installed in the following directory:

`/usr/fsn/v3r3m0w5/dc4asf`

where `/usr/fsn/v3r3m0w5/` is fix and `dc4asf` can be specified after installation with SMIT/SMITTY with the `docinstusr.sh` script file.

2 Name Space Bindings

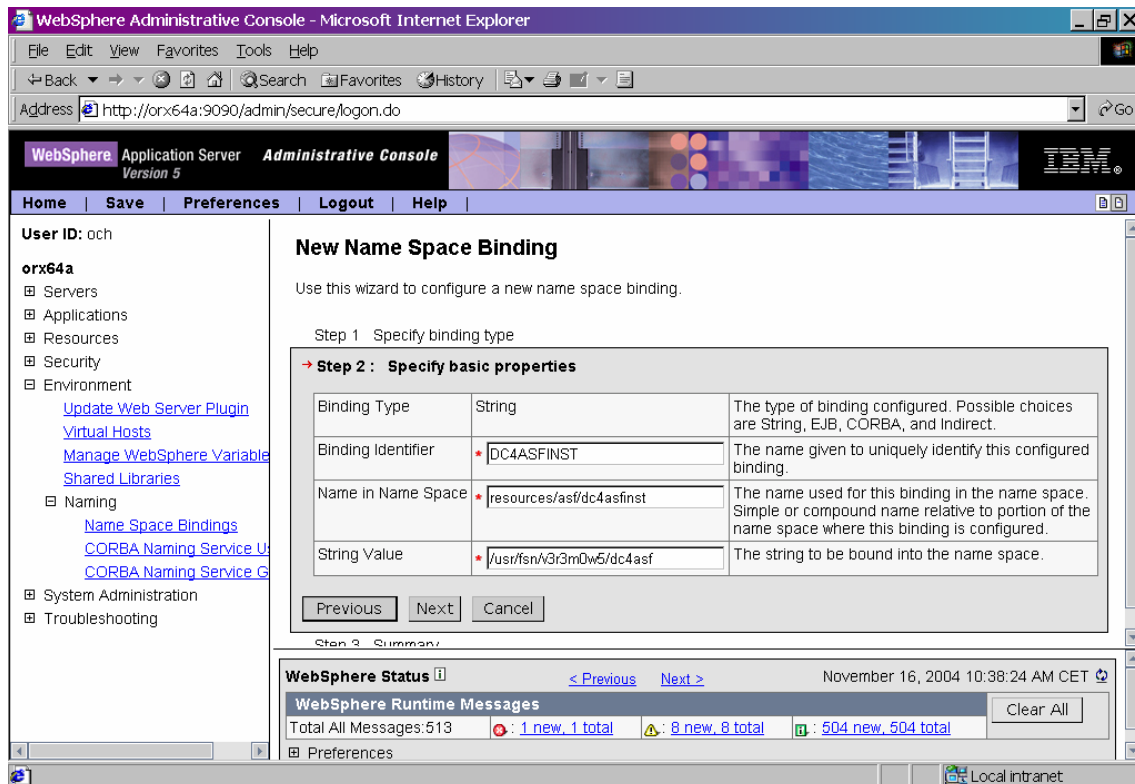
Two name space bindings must be created. To do this, open the WebSphere Administrative Console:

Open [Environment](#) > [Naming](#) > [Name Space Bindings](#)

Note: Ensure you are in the Server scope.

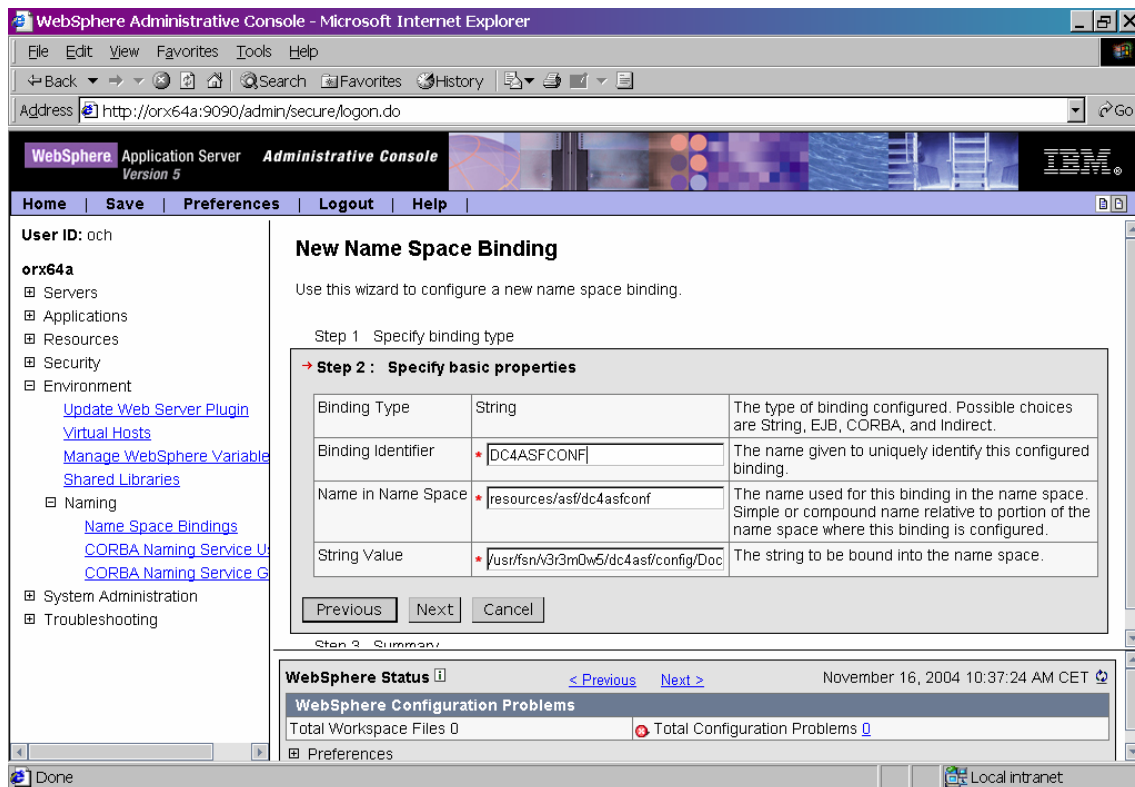
2.1 Define Name Space Binding for DC4ASFINST

- Press button **New** to create a new Binding
- Choose type **String** for the binding and press button **Next**
- Enter
 - the Binding Identifier
(for example DC4ASFINST)
 - Name in Name Space
(for example resources/asf/dc4asfinst)
 - and the path to your ASF installation directory
(/usr/fsn/v3r3m0w5/dc4asf)
- Press button **Next** to go to the Summary Panel
- On the Summary Panel press button **Finish** to complete the Name Space Binding.



2.2 Define Name Space Binding for DC4ASFCONF

- a) Press button **New** to create a new Binding
- b) Choose type **String** for the binding and press button **Next**
- c) Enter
 - the Binding Identifier
(for example DC4ASFCONF),
 - Name in Name Space
(for example resources/asf/dc4asfconf)
 - and the path to your ASF configuration file
(/usr/fsn/v3r3m0w5/dc4asf/config/DocConfiguration.xml)
- d) Press button **Next** to go to the Summary Panel
- e) On the Summary Panel press button **Finish** to complete the Name Space Binding.



Save the two name space bindings created in the master configuration.

3 Installation of the application

Preparing for the application installation

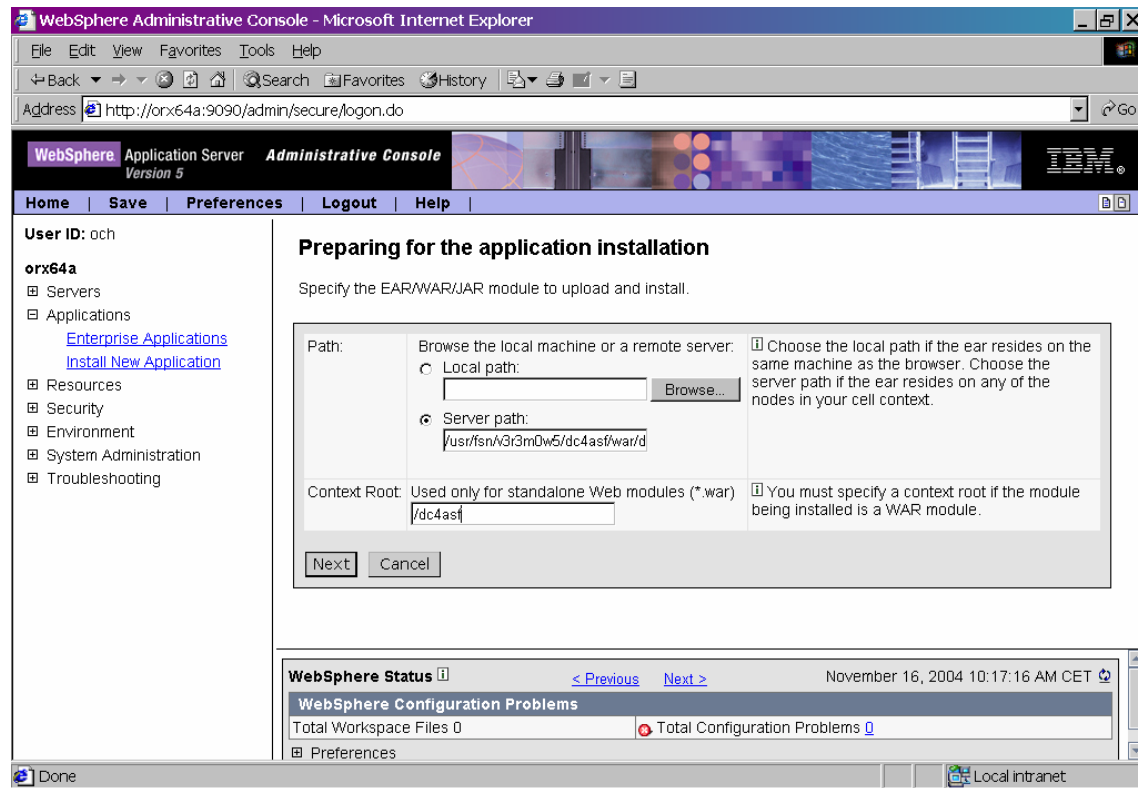
Open [Application](#) > [Install New Application](#)

Enter the path (local path or server path) where the DC4ASF war file is located:

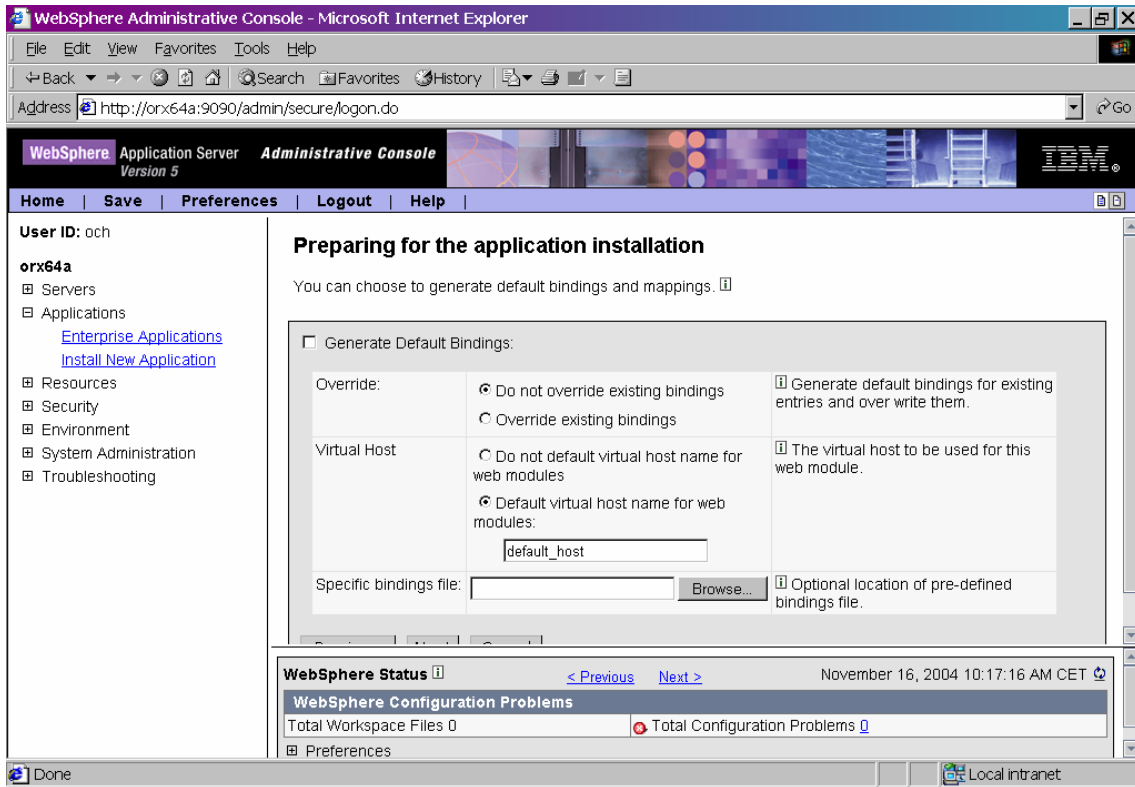
`/usr/fsn/v3r3m0w5/dc4asf/war/dc4asf.war`

Enter the context root, for example `/dc4asf`

Press button [Next](#). The file `dc4asf.war` is now loaded on the server.



Press button [Next](#).



Press button [Next](#).

Install new application (Step 1)

Fill in the required fields (installation directory, application name, class reloading).

Installation directory:

If you do not enter an installation directory, WAS will install the application under the default directory:

APP_INSTALL_ROOT/xxxxx/dc4asf.ear

where

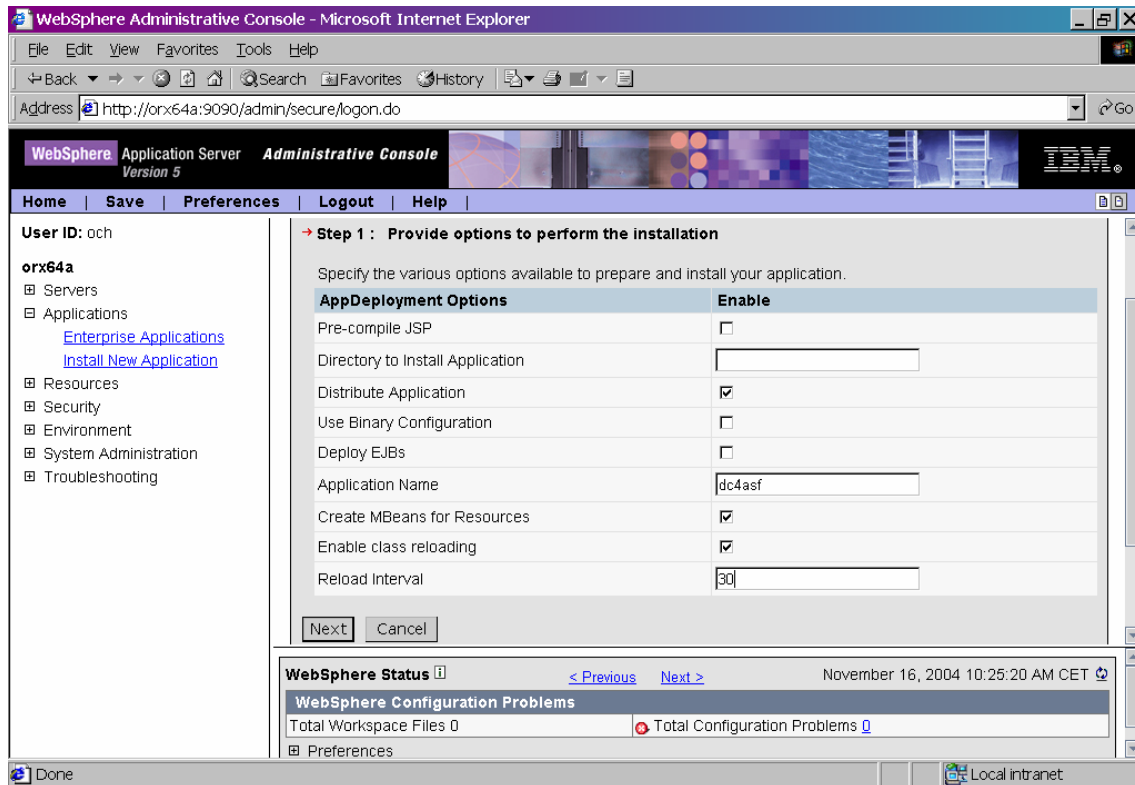
- APP_INSTALL_ROOT is a path map variable which by default is set to
`/usr/WebSphere/AppServer51/installedApps/`
- 'xxxxx' is the cell name and
- 'dc4asf' is the application name.

Application Name:

Specify a unique name, for example 'dc4asf'.

Class Reloading:

Specify a value in seconds, for example '30'.



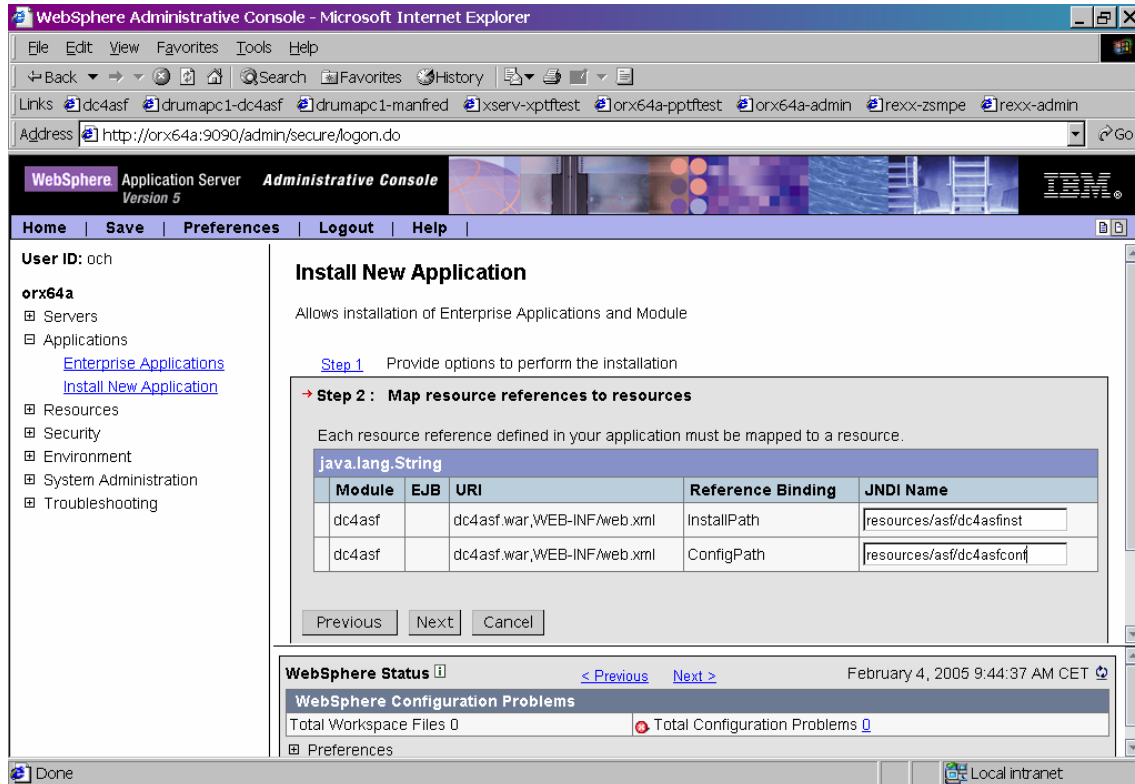
The screenshot shows the WebSphere Administrative Console interface. The main content area is titled "Step 1 : Provide options to perform the installation". Below the title, there is a table of "AppDeployment Options" with columns for the option name and an "Enable" checkbox. The "Application Name" field is filled with "dc4asf" and the "Reload Interval" is set to "30".

AppDeployment Options	Enable
Pre-compile JSP	<input type="checkbox"/>
Directory to Install Application	<input type="text"/>
Distribute Application	<input checked="" type="checkbox"/>
Use Binary Configuration	<input type="checkbox"/>
Deploy EJBs	<input type="checkbox"/>
Application Name	<input type="text" value="dc4asf"/>
Create MBeans for Resources	<input checked="" type="checkbox"/>
Enable class reloading	<input checked="" type="checkbox"/>
Reload Interval	<input type="text" value="30"/>

Press button **Next** to finish Step 1 and go to Step 2.

Install new application (Step 2)

Enter **resources/asf/dc4asfinst** for the InstallPath Reference Binding (JNDI Name) and **resources/asf/dc4asfconf** for the ConfigPath Reference Binding (see “Name Space Bindings”).



The screenshot shows the WebSphere Administrative Console interface. The browser window title is "WebSphere Administrative Console - Microsoft Internet Explorer". The address bar shows "http://orx64a:9090/admin/secure/login.do". The console header includes "WebSphere Application Server Administrative Console Version 5" and navigation links: Home, Save, Preferences, Logout, Help. The left sidebar shows a tree view with "User ID: och" and "orx64a" expanded to show "Servers", "Applications" (with sub-links for "Enterprise Applications" and "Install New Application"), "Resources", "Security", "Environment", "System Administration", and "Troubleshooting".

The main content area is titled "Install New Application" and contains the following text: "Allows installation of Enterprise Applications and Module". Below this, it indicates "Step 1: Provide options to perform the installation" and "Step 2: Map resource references to resources". A note states: "Each resource reference defined in your application must be mapped to a resource." Below the note is a table with the following data:

Module	EJB	URI	Reference Binding	JNDI Name
dc4asf		dc4asf.war,WEB-INF/web.xml	InstallPath	resources/asf/dc4asfinst
dc4asf		dc4asf.war,WEB-INF/web.xml	ConfigPath	resources/asf/dc4asfconf

At the bottom of the table area are buttons for "Previous", "Next", and "Cancel". Below the table area is a "WebSphere Status" section showing "< Previous" and "Next >" links, and the date "February 4, 2005 9:44:37 AM CET". Below that is a "WebSphere Configuration Problems" section showing "Total Workspace Files 0" and "Total Configuration Problems 0".

Press button **Next** to finish Step 2 and go to Step 3.

Install new application (Step 3)

The screenshot shows the WebSphere Administrative Console in a Microsoft Internet Explorer browser window. The address bar displays `http://orx64a:9090/admin/secure/logon.do`. The console header includes the IBM logo and navigation links: Home, Save, Preferences, Logout, and Help. The user is logged in as 'och' on server 'orx64a'. A left-hand navigation pane lists various administrative areas like Servers, Applications, Resources, Security, Environment, System Administration, and Troubleshooting. The main content area is titled 'Install New Application' and provides instructions for installing Enterprise Applications and Modules. It outlines four steps: Step 1 (Provide options), Step 2 (Map resource references), Step 3 (Map virtual hosts for web modules), and Step 4 (Map modules to application servers). Step 3 is currently active, showing a table for mapping web modules to virtual hosts. The table has two columns: 'Web Module' and 'Virtual Host'. One row is visible with 'dc4asf' in the 'Web Module' column and 'default_host' in the 'Virtual Host' column. Below the table are 'Previous', 'Next', and 'Cancel' buttons. At the bottom of the console, there is a 'WebSphere Status' section with links for '< Previous' and 'Next >', and a 'WebSphere Configuration Problems' section showing 'Total Workspace Files 0' and 'Total Configuration Problems 0'. The system tray at the bottom of the browser window shows 'Done' and 'Local intranet'.

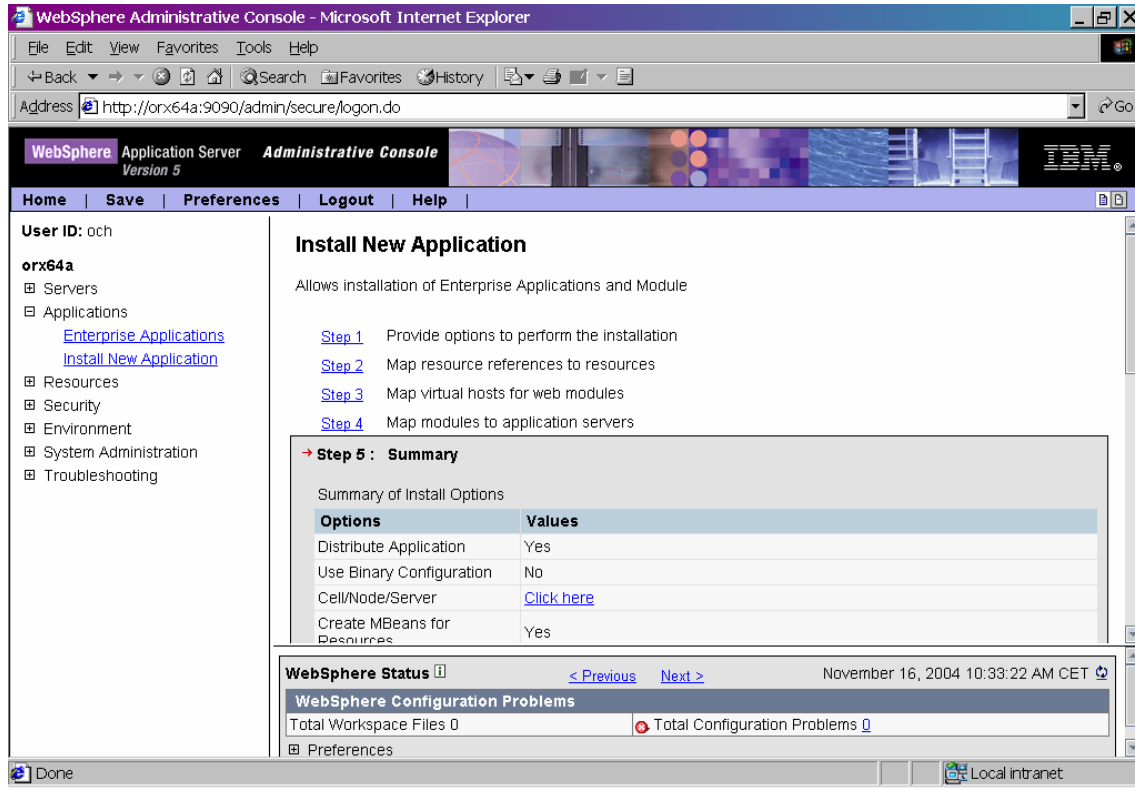
No updates are required for Step 3. Press button **Next** to go to Step 4.

Install new application (Step 4)

The screenshot shows the WebSphere Administrative Console in a Microsoft Internet Explorer browser window. The address bar shows the URL `http://orx64a:9090/admin/secure/logon.do`. The console header includes the IBM logo and navigation links: Home, Save, Preferences, Logout, and Help. The user ID is 'och' and the server is 'orx64a'. A left-hand navigation menu lists various administration areas like Servers, Applications, Resources, Security, Environment, System Administration, and Troubleshooting. The main content area is titled 'Install New Application' and contains instructions for installing enterprise applications. It lists three steps: Step 1 (Provide options), Step 2 (Map resource references), and Step 3 (Map virtual hosts). Step 4, 'Map modules to application servers', is the current step, with instructions to specify the application server for modules. A text input field contains the server name 'WebSphere:cell=orx64a,node=orx64a,server=server1' and an 'Apply' button is next to it. Below this is a table with columns for 'Module', 'URI', and 'Server'. The table contains one entry: 'dc4asf' with URI 'dc4asf.war,WEB-INF/web.xml' and Server 'WebSphere:cell=orx64a,node=orx64a,server=server1'. At the bottom of the console, there is a 'WebSphere Status' section with navigation links for '< Previous' and 'Next >', and a date/time stamp of 'November 16, 2004 10:32:22 AM CET'. Below that is a 'WebSphere Runtime Messages' section showing 'Total All Messages: 505' with a breakdown of 1 new message, 0 new warnings, and 504 new messages. A 'Clear All' button is also present.

No updates are required for Step 4. Press button [Next](#) to go to Step 5.

Install new application (Step 5)



The screenshot shows the WebSphere Administrative Console in Microsoft Internet Explorer. The browser address bar shows `http://orx64a:9090/admin/secure/logon.do`. The console header includes 'WebSphere Application Server Administrative Console Version 5' and navigation links: Home, Save, Preferences, Logout, Help. The left sidebar shows the user ID 'och' and a tree view with 'orx64a' expanded to 'Applications', where 'Enterprise Applications' and 'Install New Application' are highlighted. The main content area is titled 'Install New Application' and contains a list of steps: Step 1 (Provide options to perform the installation), Step 2 (Map resource references to resources), Step 3 (Map virtual hosts for web modules), Step 4 (Map modules to application servers), and Step 5 (Summary). Step 5 is selected and expanded to show a 'Summary of Install Options' table:

Options	Values
Distribute Application	Yes
Use Binary Configuration	No
Cell/Node/Server	Click here
Create MBeans for Resumes	Yes

At the bottom of the console, there is a 'WebSphere Status' section with '< Previous' and 'Next >' links, and a 'WebSphere Configuration Problems' section showing 'Total Workspace Files 0' and 'Total Configuration Problems 0'. The status bar at the bottom indicates 'Done' and 'Local intranet'.

Check the settings on this page and press button **Finish** to start the installation of your application. When the installation of the application has been completed it must be **saved** in the master configuration.

Start the application

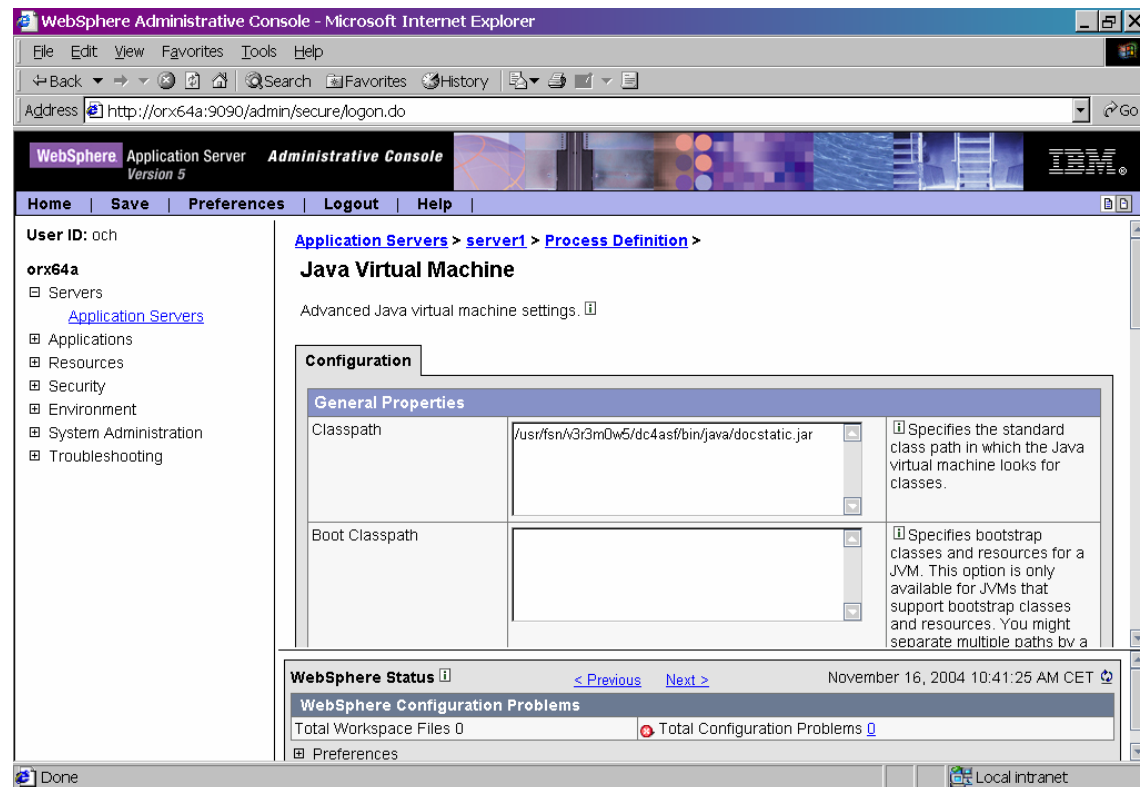
Open [Applications](#) > [Enterprise Application](#), select your dc4asf application, and select **Start** to start the application.

4 Spellcheck Installation

To activate spell check you must set the Classpath variable and define a LIBPATH variable to the WAS environment.

Open [Servers](#) > [Application Servers](#) > *server name* > [Process Definition](#) > [Java Virtual Machine](#)

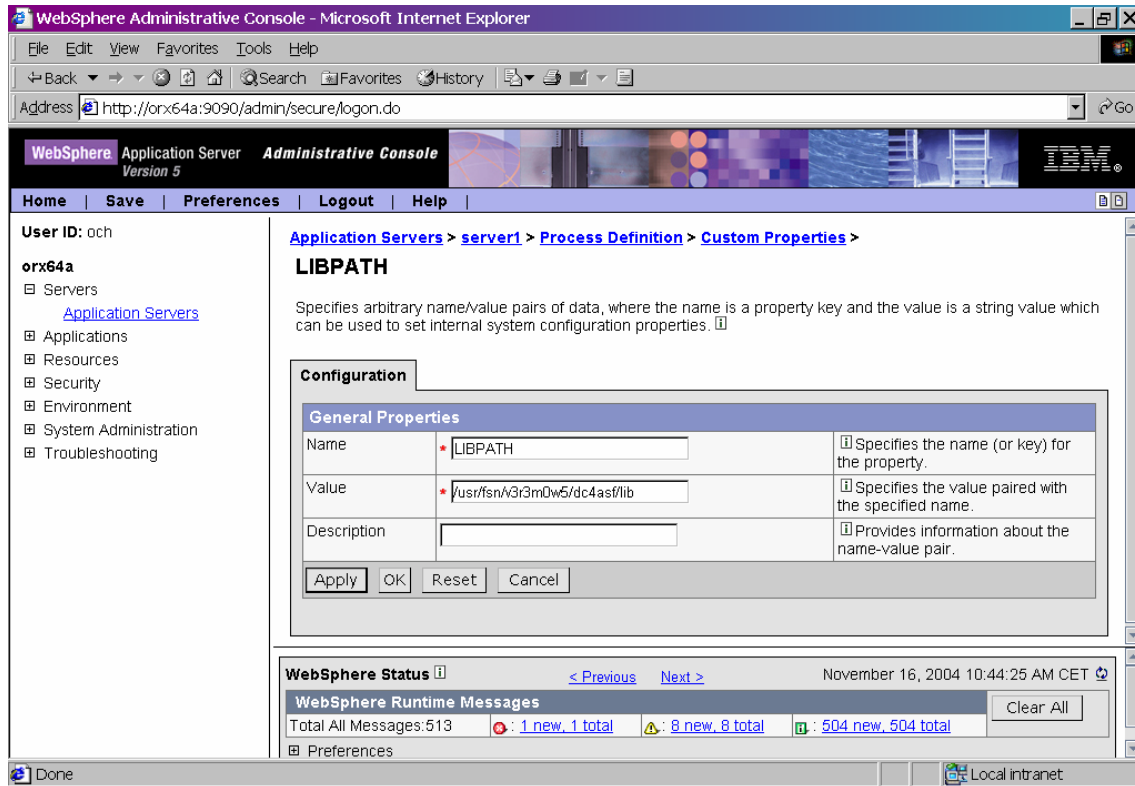
Add the file *docstatic.jar* delivered with DC4ASF to the Classpath (/usr/fsn/v3r3m0w5/bin/java/docstatic.jar).



Press button [Apply](#) first and then press button [OK](#).

Open [Servers](#) > [Application Servers](#) > *server name* > [Process Definition](#) > [Environment Entries](#)

Create the variable **LIBPATH**. Set its value to the Document Connect for ASF shared library path (/usr/fsn/v3r3m0w5/dc4asf/bin).



Press button **Apply** first and then press button **OK**.

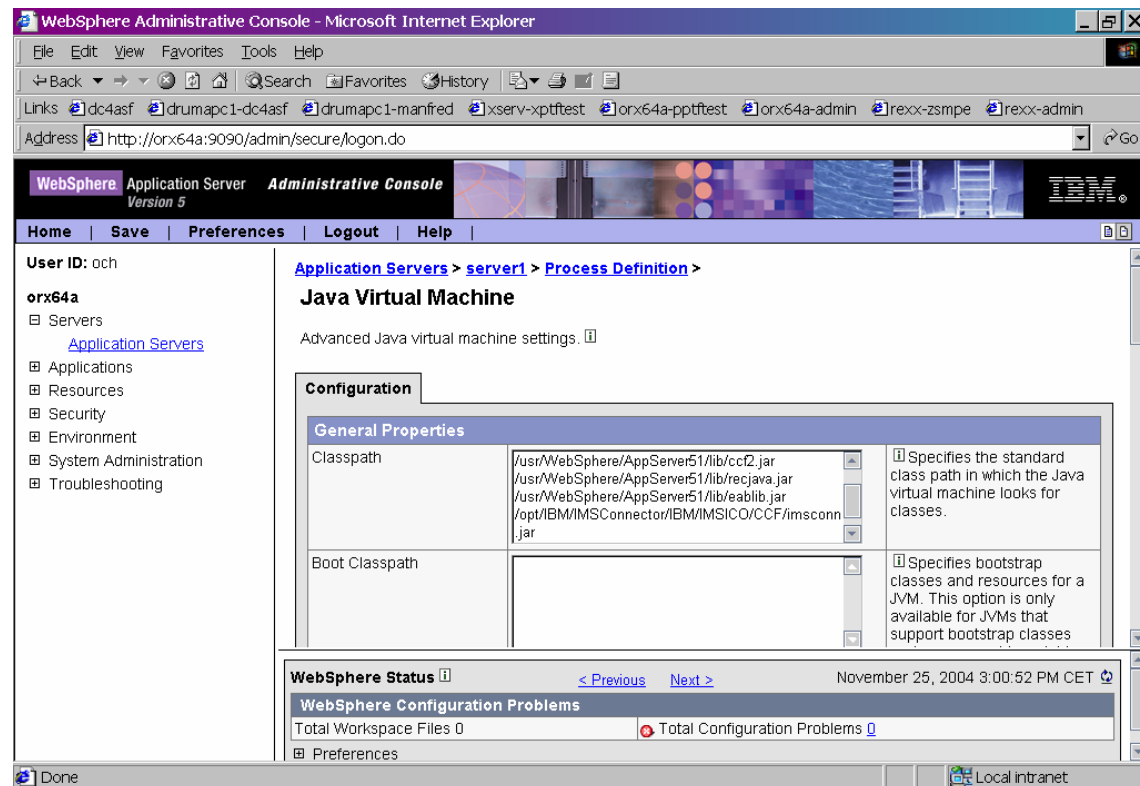
Save the changes to the master configuration.

5 Enable IMS Connect

To enable the IMS Connect connection between server and host you must change the Classpath variable in the WAS environment.

Open [Servers](#) > [Application Servers](#) > *server name* > [Process Definition](#) > [Java Virtual Machine](#)

Add the file *imscconn.jar* delivered with the IMS Connector for Java and the files *ccf.jar*, *ccf2.jar*, *recjava.jar* and *eablib.jar* delivered with WAS to the classpath (e.g. /opt/IBM/IMSConnector/IBM/IMSICO/CCF/imscconn.jar and /usr/WebSphere/AppServer51/lib/ccf.jar).



Press button [Apply](#) first and then press button [OK](#).

[Save](#) the changes to the master configuration.

After modifying the variable Classpath, you must stop and restart WebSphere Application Server.

6 HTTP Server Changes

Configure the WebSphere PLUGIN

Using Shared Object library "mod_ibm_app_server_http.so"

Make sure you have installed the Shared Object (SO) library [mod_ibm_app_server_http.so](#). This SO is usually installed with WAS by selecting the HTTP server installation. It resides in the bin directory of the WAS installation.

Modify the configuration file "plugin-cfg.xml"

Generate the plugin configuration file "plugin-cfg.xml" using the WebSphere Administrative Console:

Open [Environment](#) > [Update Web Server Plugin](#)

Press button **OK** to generate the file [plugin-cfg.xml](#) .

Note: Usually the xml file is placed in the config/cells directory of the IBM WebSphere Application Server installation.

Copy the file "plugin-cfg.xml" into the "conf" directory of the IBM HTTP Server. Open the copy with an editor and modify it as follows:

a) Locate the following string (which may be customized with your installation values):

```
<Uri AffinityCookie="JSESSIONID" Name="/dc4asf/*"/>
```

Note:

dc4asf is the context root as described in "Preparing for the application installation".

b) Insert the text string "servlet/" before the asterisk:

```
<Uri AffinityCookie="JSESSIONID" Name="/dc4asf/servlet/*"/>
```

c) Add the following lines after the line specified in b) above:

```
<Uri AffinityCookie="JSESSIONID" Name="/dc4asf/html/*"/>
<Uri AffinityCookie="JSESSIONID" Name="/dc4asf/xsl/*"/>
<Uri AffinityCookie="JSESSIONID" Name="/dc4asf/javascript/*"/>
<Uri AffinityCookie="JSESSIONID" Name="/dc4asf/java/*"/>
<Uri AffinityCookie="JSESSIONID" Name="/dc4asf/css/*"/>
<Uri AffinityCookie="JSESSIONID" Name="/dc4asf/preview/*"/>
<Uri AffinityCookie="JSESSIONID" Name="/dc4asf/DocASFServerConfigServlet/*"/>
<Uri AffinityCookie="JSESSIONID" Name="/dc4asf/DocASFNetworkConfigServlet/*"/>
<Uri AffinityCookie="JSESSIONID" Name="/dc4asf/DocASFNetworkConfigProcessServlet/*"/>
<Uri AffinityCookie="JSESSIONID" Name="/dc4asf/DocASFFileServlet/*"/>
```

Note:

You will find these lines in the file plugin-cfg.xml.add delivered with DC4ASF in the /install directory.

d) Save the file

Configure the IBM HTTP Server

You need to configure your IBM HTTP Server to run properly with DC4ASF. Proceed as follows:

a) Open the HTTP server configuration file "httpd.conf". Usually it is located in the conf directory of the HTTP server installation.

b) Add the following lines:

```
Alias /dc4asf/           "/usr/fsn/v3r3m0w5/dc4asf/www/"
Alias /dc4asf/transfer/ "/usr/fsn/v3r3m0w5/dc4asf/www/transfer/"
Alias /dc4asf/help/     "/usr/fsn/v3r3m0w5/dc4asf/www/help/"
Alias /dc4asf/helpconfig/ "/usr/fsn/v3r3m0w5/dc4asf/www/helpconfig/"
Alias /dc4asf/images/  "/usr/fsn/v3r3m0w5/dc4asf/www/images/"
Alias /dc4asf/custom/  "/usr/fsn/v3r3m0w5/dc4asf/www/custom/"
Alias /dc4asf/samples/ "/usr/fsn/v3r3m0w5/dc4asf/www/samples/"
```

Note:

You will find these lines in the file http.conf.add delivered with DC4ASF in the /install directory.

c) Restart the HTTP server to activate the changes.

7 Configure the Connections

To define the server-host connections in DocNetworkConfiguration.xml invoke the servlet application "DocASFNetworkConfigServlet" using the Microsoft Internet Explorer.

Specify your IMS name (TCP/IP address), port number and datastore name (as defined within IMS Connect), the IMS transaction code, the defined User ID used for IMS logon and the corresponding password.

Press button **OK** to save your changes.

Note:

The password specified will be encrypted and stored in file "hnp.txt" in the /config subdirectory.

Host nickname	Host connection data
sc1I7ic	Connection type: IMS
	Conversational IMS Processing: <input type="checkbox"/>
	IMS name: boerexx.boeblingen.de.ibm.com
	Port number: 6000
	Datastore name: ims72
	XCode: sc1e
	User ID: IMSuser
	New Password: *****
	Confirm new password: *****

Stop and **Start** your application using the WebSphere Administrative Console.

8 Installing a second Application

The steps above describe how to install the application dc4asftest in WebSphere Application Server.

IBM recommends to generate a second application instance of Document Connect for ASF for use by administrators, for example “[dc4asftest](#)”.

To create a second instance, execute the script file “docinstusr.sh” available in directory [/usr/lpp/fsn_v3r3m0w5/IBM](#)

When being prompted specify an alternate installation path, for example

[dc4asftest](#)

After successful completion perform the following steps using the WebSphere Administrative Console:

1. Add two name space bindings as described in “Name Space Bindings” with different values, for example:

Binding Identifier	DC4ASFINSTTEST
Name in Name Space	resources/asf/dc4asfintsttest
Path	/usr/fsn/v3r3m0w5/dc4asftest

Binding Identifier	DC4ASFCONFTTEST
Name in Name Space	resources/asf/dc4asfconfsttest
Path	/usr/fsn/v3r3m0w5/dc4asftest/config/DocConfiguration.xml

2. Perform the steps described in “Installation of the application” with the following changes:

In paragraph “Preparing for the application installation”, specify the following path for the location of the war file:

[/usr/fsn/v3r3m0w5/dc4asftest/war/DCF4ASF.war](#)

and specify the following path for context root:

[/dc4asftest](#)

In paragraph “Install new application (Step 1)”, use “[dc4asftest](#)” as the application name

In paragraph “Install new application (Step 2)”, use the following new name space bindings:

resources/asf/dc4asfintsttest

resources/asf/dc4asfconfsttest

Now perform the steps described in “HTTP Server Changes“ using the context root [/dc4asftest](#).

The file plugin-cfg.xml will then contain the following lines:

```
<Uri AffinityCookie="JSESSIONID" Name="/dc4asf/html/*"/>
<Uri AffinityCookie="JSESSIONID" Name="/dc4asf/xsl/*"/>
<Uri AffinityCookie="JSESSIONID" Name="/dc4asf/javascript/*"/>
<Uri AffinityCookie="JSESSIONID" Name="/dc4asf/java/*"/>
<Uri AffinityCookie="JSESSIONID" Name="/dc4asf/css/*"/>
<Uri AffinityCookie="JSESSIONID" Name="/dc4asf/preview/*"/>
<Uri AffinityCookie="JSESSIONID" Name="/dc4asf/DocASFServerConfigServlet/*"/>
<Uri AffinityCookie="JSESSIONID" Name="/dc4asf/DocASFNetworkConfigServlet/*"/>
<Uri AffinityCookie="JSESSIONID" Name="/dc4asf/DocASFNetworkConfigProcessServlet/*"/>
<Uri AffinityCookie="JSESSIONID" Name="/dc4asf/DocASFFileServlet/*"/>

<Uri AffinityCookie="JSESSIONID" Name="/dc4asftest/servlet/*"/>
<Uri AffinityCookie="JSESSIONID" Name="/dc4asftest/html/*"/>
<Uri AffinityCookie="JSESSIONID" Name="/dc4asftest/xsl/*"/>
<Uri AffinityCookie="JSESSIONID" Name="/dc4asftest/javascript/*"/>
<Uri AffinityCookie="JSESSIONID" Name="/dc4asftest/java/*"/>
<Uri AffinityCookie="JSESSIONID" Name="/dc4asftest/css/*"/>
<Uri AffinityCookie="JSESSIONID" Name="/dc4asftest/preview/*"/>
<Uri AffinityCookie="JSESSIONID" Name="/dc4asftest/DocASFServerConfigServlet/*"/>
<Uri AffinityCookie="JSESSIONID" Name="/dc4asftest/DocASFNetworkConfigServlet/*"/>
<Uri AffinityCookie="JSESSIONID" Name="/dc4asftest/DocASFNetworkConfigProcessServlet/*"/>
<Uri AffinityCookie="JSESSIONID" Name="/dc4asftest/DocASFFileServlet/*"/>
```

The file http.conf will then contain the following lines:

```
Alias /dc4asf/           "/usr/fsn/v3r3m0w5/dc4asf/www/"
Alias /dc4asf/transfer/ "/usr/fsn/v3r3m0w5/dc4asf/www/transfer/"
Alias /dc4asf/help/     "/usr/fsn/v3r3m0w5/dc4asf/www/help/"
Alias /dc4asf/helpconfig/ "/usr/fsn/v3r3m0w5/dc4asf/www/helpconfig/"
Alias /dc4asf/images/  "/usr/fsn/v3r3m0w5/dc4asf/www/images/"
Alias /dc4asf/custom/  "/usr/fsn/v3r3m0w5/dc4asf/www/custom/"
Alias /dc4asf/samples/ "/usr/fsn/v3r3m0w5/dc4asf/www/samples/"

Alias /dc4asftest/     "/usr/fsn/v3r3m0w5/dc4asftest/www/"
Alias /dc4asftest/transfer/ "/usr/fsn/v3r3m0w5/dc4asftest/www/transfer/"
Alias /dc4asftest/help/   "/usr/fsn/v3r3m0w5/dc4asftest/www/help/"
Alias /dc4asftest/helpconfig/ "/usr/fsn/v3r3m0w5/dc4asftest/www/helpconfig/"
Alias /dc4asftest/images/  "/usr/fsn/v3r3m0w5/dc4asftest/www/images/"
Alias /dc4asftest/custom/  "/usr/fsn/v3r3m0w5/dc4asftest/www/custom/"
Alias /dc4asftest/samples/ "/usr/fsn/v3r3m0w5/dc4asftest/www/samples/"
```

9 Applying Maintenance

Use SMIT or SMITTY to apply the PTF containing new tar file(s). SMIT/SMITTY will copy the tar file(s) into directory

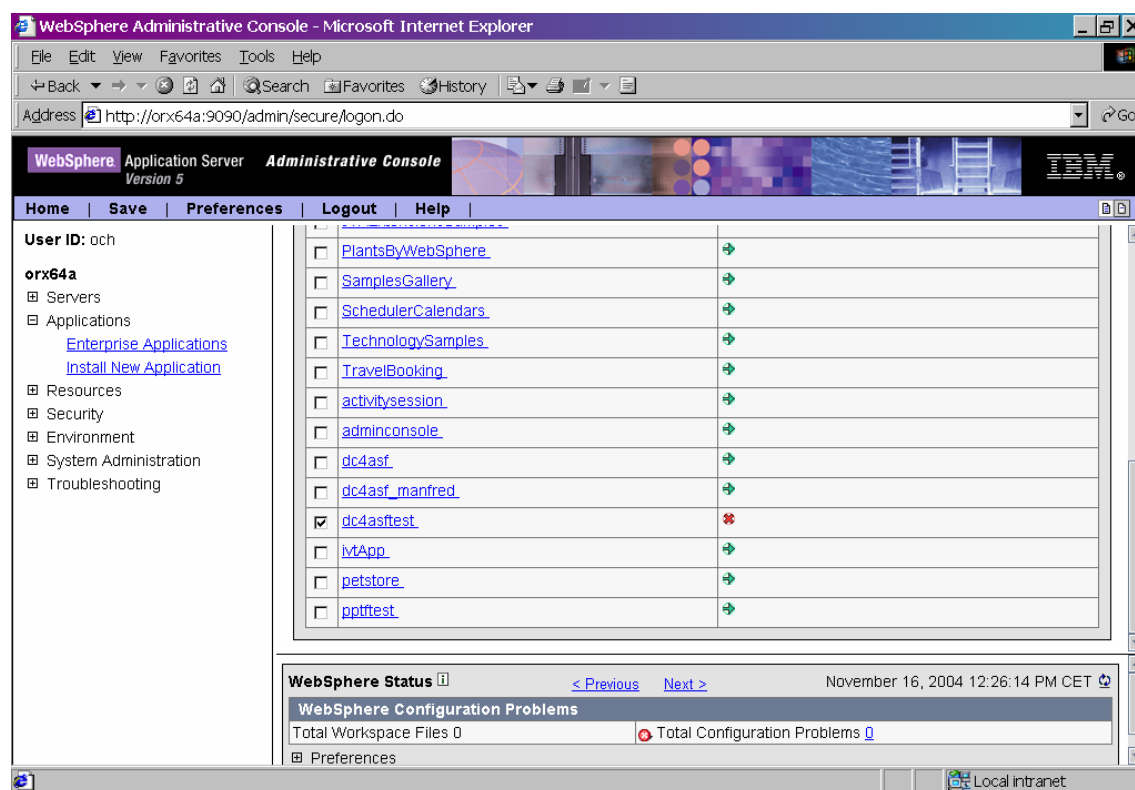
`/usr/lpp/fsn_v3r3m0w5/IBM`

Use the script file “docinstusr.sh” available in directory `/usr/lpp/fsn_v3r3m0w5/IBM` to apply the tar file(s) to the appropriate application, for example `dc4asftest`

Open the WebSphere Administrative Console:

[Open Application > Enterprise Application](#)

Select application “dc4asftest” and select [Update](#).



Enter the path (local path or server path) where the new DC4ASF war file is located:

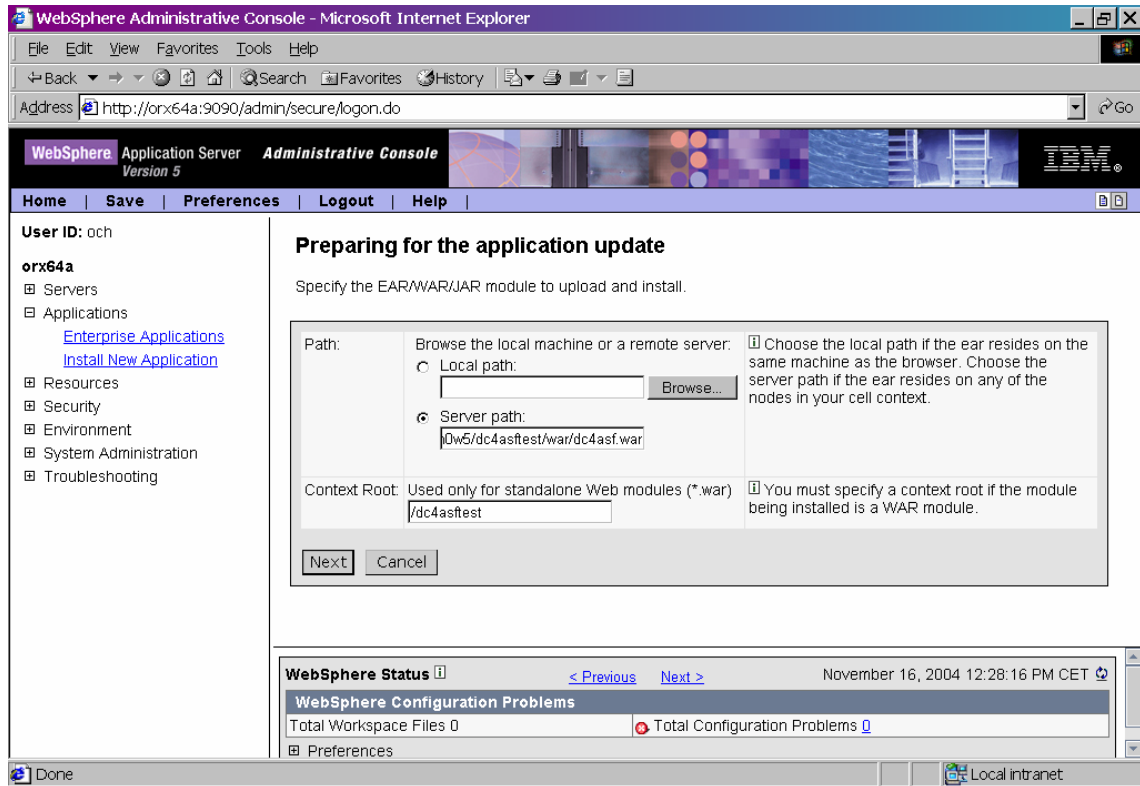
`/usr/fsn/v3r3m0w5/dc4asftest/war/dc4asf.war`

Enter the context root: `/dc4asftest`

Note:

The context root must be the same as the context root specified during installation (see “Preparing for the application installation”). If you do not remember the context root of your installation, check the file `plugin-cfg.xml`:

```
...  
<Uri AffinityCookie="JSESSIONID" Name="/dc4asftest/servlet/*"/>  
<Uri AffinityCookie="JSESSIONID" Name="/dc4asftest/html/*"/>  
...
```



On each of the next panels press button **Next** and finally press button **Finish**. After the update of the application has been completed save the master configuration.

Open [Applications](#) > [Enterprise Application](#) and select your application dc4asftest. Select **Stop** and then select **Start** to restart the application.