

Extend WebSphere Portal with OmniFind Enterprise Edition search solution

Introduction

OmniFind provides search capabilities suitable for the entire user community of a large organization. Built on a flexible, open architecture, it offers a unique and powerful combination of performance, security, scalability, enterprise reach, and openness for applying advanced linguistic processing. OmniFind is well adapted to work in the heterogeneous and multi-vendor world of the modern enterprise. Lotus Notes® / Domino® and WebSphere Portal customers, in particular, benefit from the secure, best-in-class integrations OmniFind offers to them.

OmniFind delivers high-quality, scalable, and secure free-form text search that finds the most relevant corporate information for employees, suppliers, business partners, and clients. By simply entering a keyword or phrase, users can quickly search intranets, corporate public Web sites, relational database systems, file systems, and content repositories, and obtain meaningful results. Users also have the ability to go beyond standard full-text search and perform parametric and semantic queries to dramatically improve the relevancy of search results.

Differences between WebSphere Portal and OmniFind

Although IBM WebSphere Portal Server contains its own built-in search capability, this search engine has several significant limitations. It is intended to index and search only a few hundred-thousand documents. Furthermore, it must be used within WebSphere Portal and has no stand-alone capability.

WebSphere Portal search cannot see foreign content repositories (such as FileNet®, Documentum, OpenText, and so on), so it cannot be used to index and search these data sources. Therefore, it cannot be used as the single, complete search solution for all enterprise content. To get to all information, users are forced to use WebSphere Portal search plus one or more other search tools.

OmniFind does not have these restrictions. It can index a much larger number of documents than Portal search: up to tens of millions. OmniFind can see foreign content repositories, so it can index all enterprise content, no matter where it is stored. OmniFind can also be used outside of WebSphere Portal, so it can be the single enterprise search tool for all users, and for all content.

System requirements and prerequisites

- The operating system is Windows® 2003 Server, Enterprise Edition, 32 bit platform for both portal server and OmniFind.
- OmniFind Enterprise Edition version 8.4 or 8.5
- OmniFind has been deployed in the Single Server.
- WebSphere Portal Server version 6.0
- WebSphere Portal has been deployed over WAS ND (version 6.1) and deployed on Windows 2003 Enterprise Edition
- WebSphere Information Integrator Content Edition Version 8.4
- WAS 6.1 supplements

Before you attempt to do the integration steps, make sure that both WebSphere Portal and OmniFind are installed on their respective servers and are functioning normally. Only then should you attempt to modify configurations as specified explicitly in this document.

Installing and configuring the products

Step 1: Install OmniFind on a single server

Follow the screenshots below, using the instructions and default settings unless otherwise noted. In case you see a screen not included here, please accept default options, and proceed to the next step by clicking the **Next** button.

1. Review the installation requirements.

Figure 1 Review installation requirements

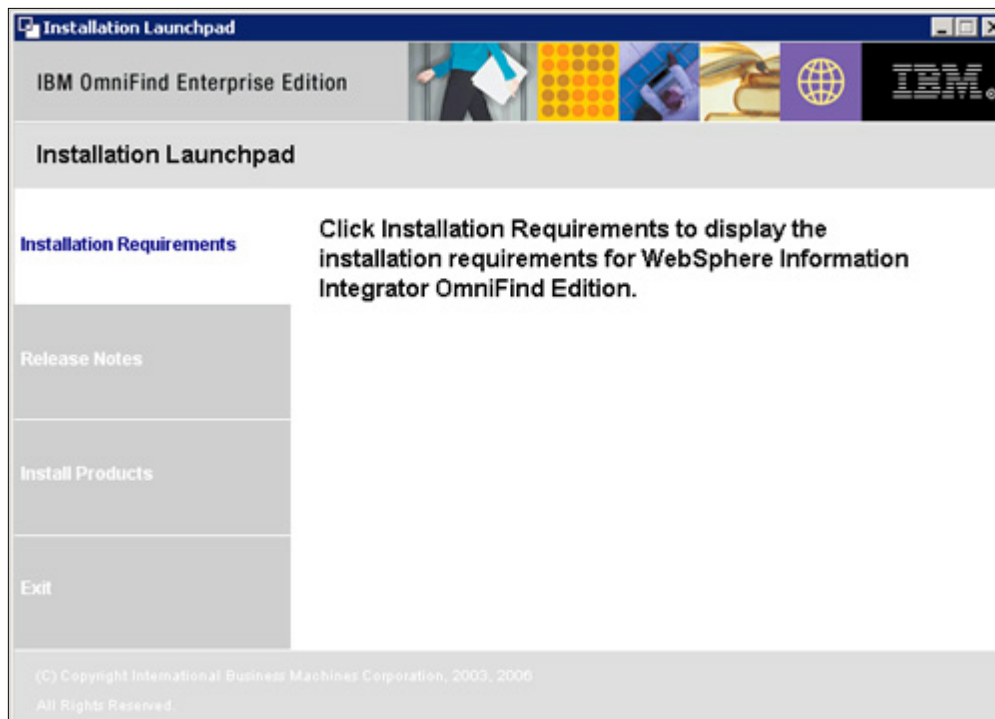


Fig (1)

Infocenter Link:

http://publib.boulder.ibm.com/infocenter/discover/v8r4/topic/com.ibm.discovery.es.nav.doc/navcontainers/iiypofnv_install_cont.htm

2. Select **Install Products**.
Figure 2 Select install

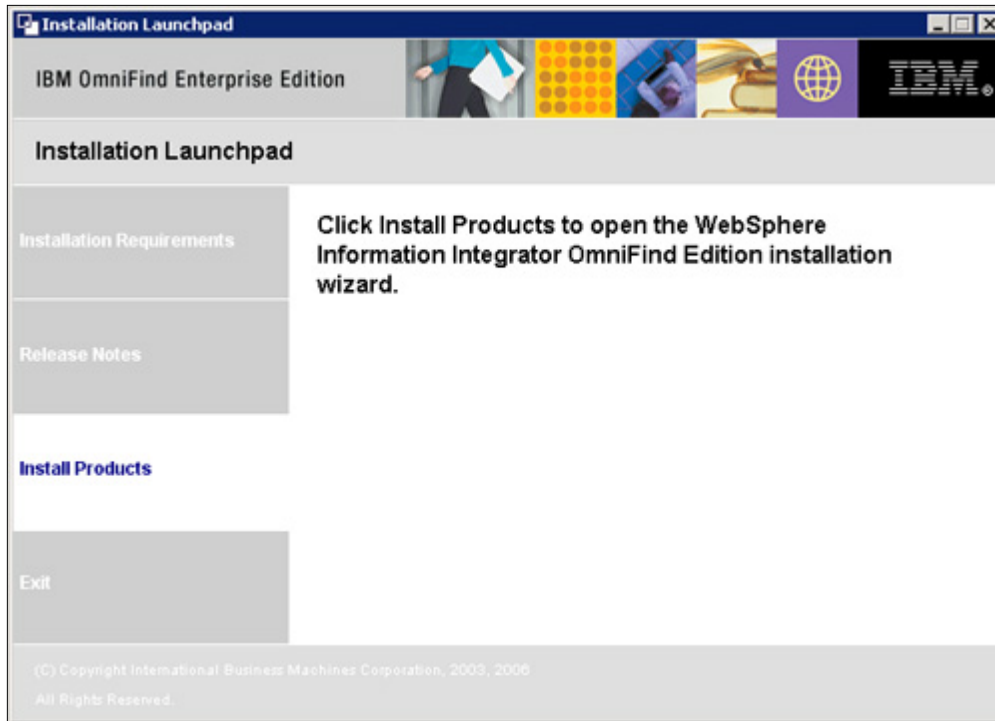


Fig (2)

3. Accept the license agreement by clicking the **Accept** button.

Figure 3 License agreement

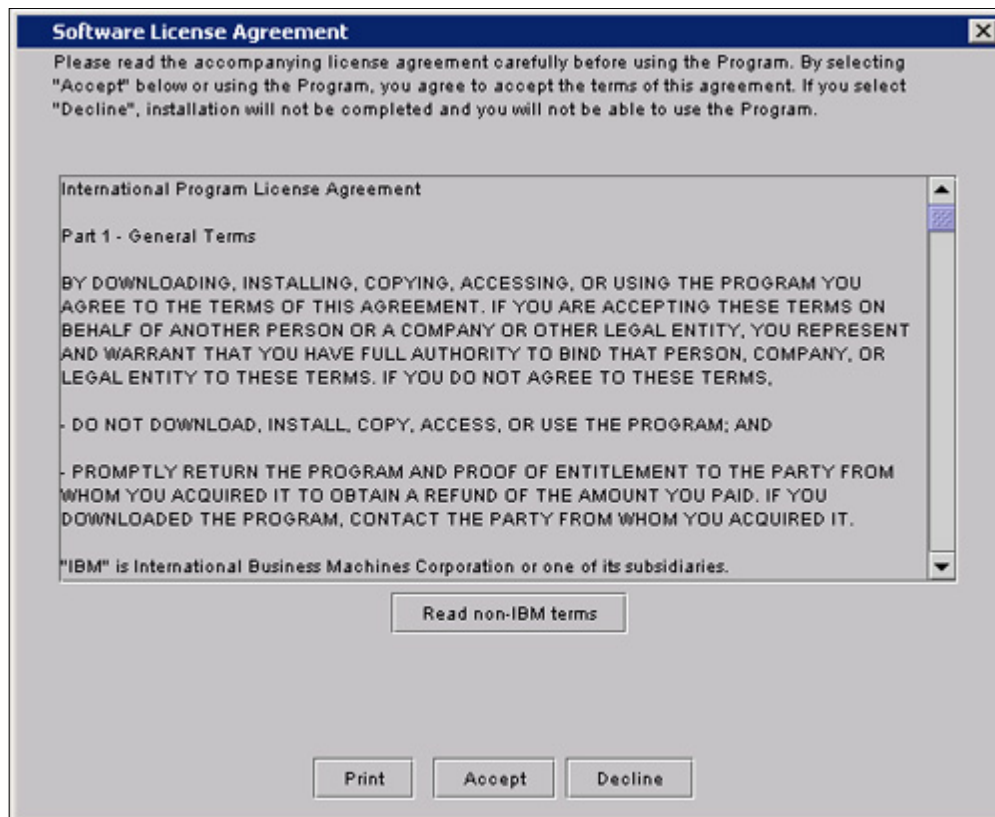


Fig (3)

4. From the Welcome screen, click **Next** to proceed.

Figure 4 Welcome screen

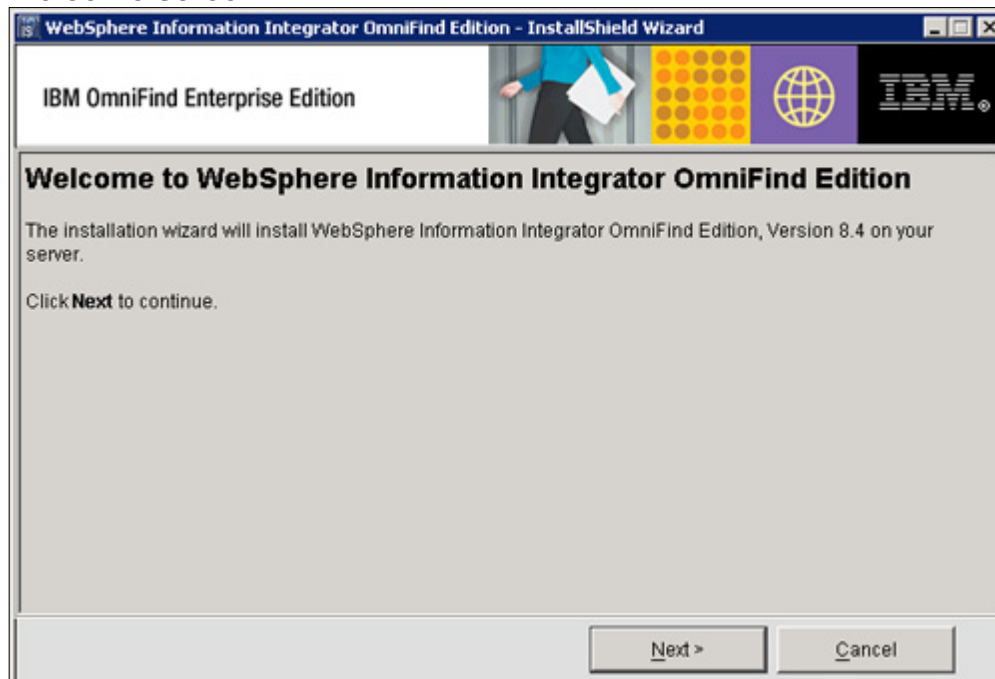


Fig (4)

5. Select **Install a new version of WebSphere Information Integrator OmniFind Edition** and click **Next**.

Figure 5 Select to install a new version

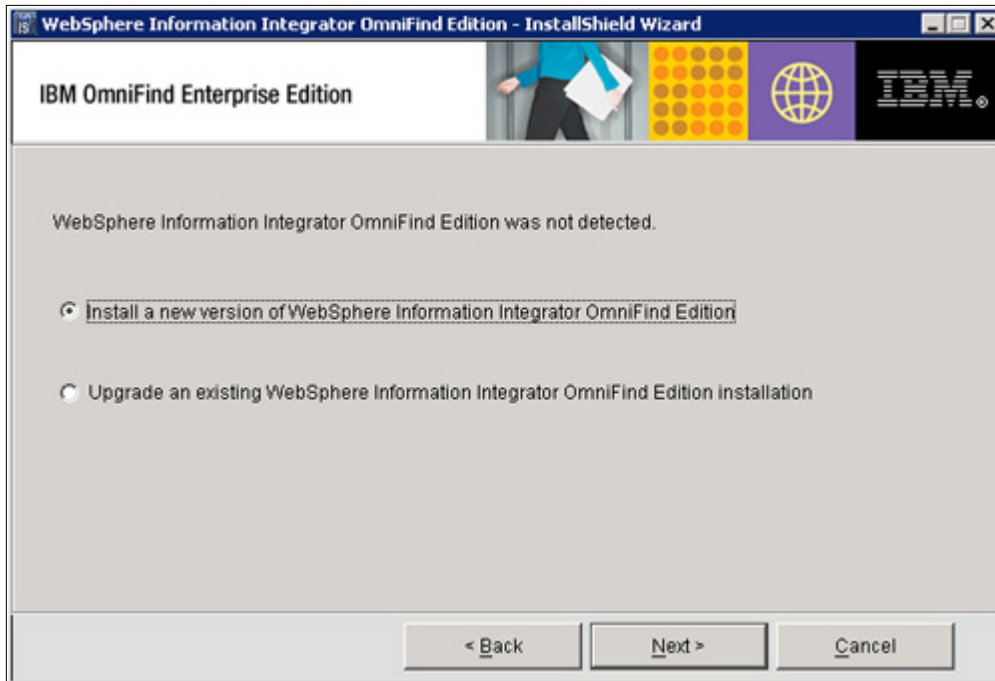


Fig (5)

6. Select **Create a new ID and password**. (This is for a fresh install on a new machine where the user "esadmin" does not exist. If the user exists, select the option **Use an existing ID and password**.)

Figure 6. Specifying user ID and password



Fig (6)

Note the following:

- If the option **Create a new ID and password** is selected, the installer creates a new user. Please ensure that this user does not exist prior to the installation process. Remember, the default is "esadmin."
- This user is a local user, and it *cannot be a domain user*.
- Please ensure that the appropriate privileges have been assigned to the user.
- Often local policies get overridden by the periodic update of globally-defined policies which may interfere with the installation process, or, even after successful installation, interfere with the normal functioning of the server. If you notice that the WAS server (ESSearchServer) goes down periodically, there is a high likelihood of local user properties getting modified by the global policies.
- The search admin user should be an administrator on the server on which OmniFind is being installed.
- The following User Rights Assignments in the Local Security Policy must be set:
 - Act as part of the operating system
 - Lock pages in memory
 - Create a token object
 - Replace a process level token
 - Impersonate a client after authentication
 - Adjust memory quotas for a process. (The infocenter/installation guide refers to this as *Increase quotas*. Windows 2003 Enterprise Server has the property listed as "Adjust memory quotas for a process" and not "Increase quotas".)
 - Log on as a service

Infocenter Link:

<http://publib.boulder.ibm.com/infocenter/discover/v8r4/topic/com.ibm.discovery.es.in.doc/installing/iisiprepallwin.htm>

7. Select installation directory.

Figure 7 Specifying installation directories

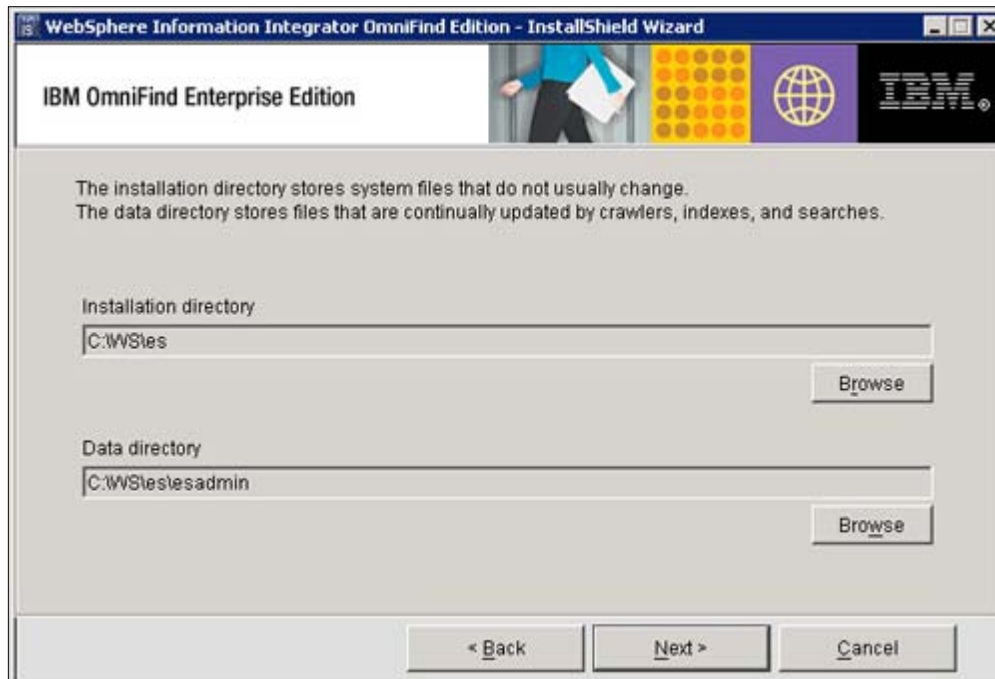


Fig (7)

8. Select **Single Server** as per the initial requirements. In case the capacity requirements change, please refer to the product manuals

Figure 8 Specifying Single Server

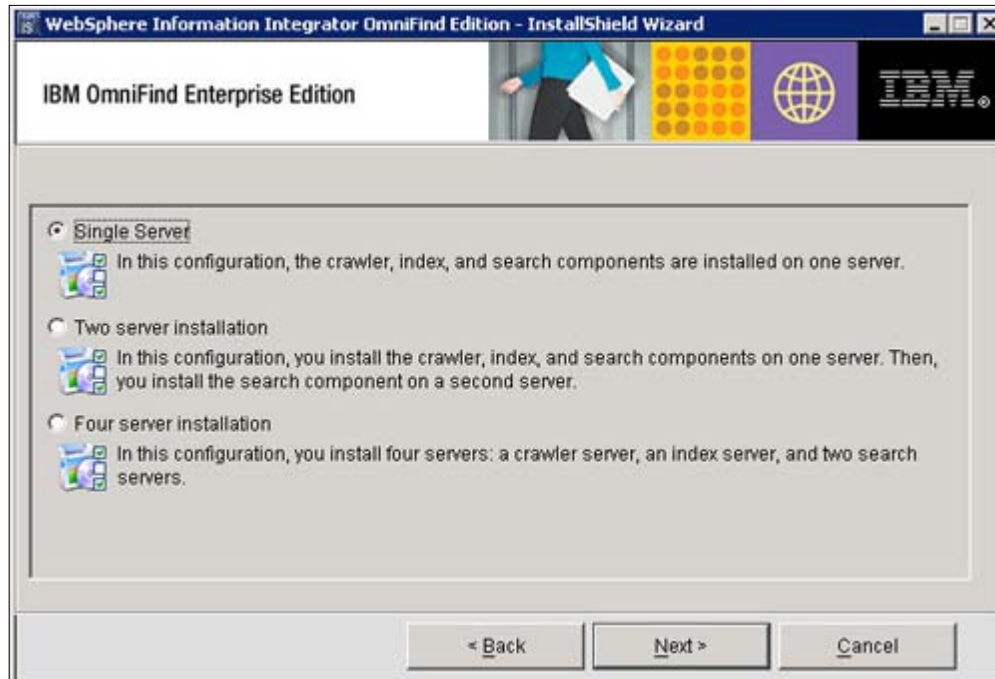


Fig (8)

Info-center link:

<http://publib.boulder.ibm.com/infocenter/discover/v8r4/topic/com.ibm.discovery.es.in.doc/installing/iysiinstalloverview.htm>

9. Read and acknowledge then next screen by clicking **Next**.
Figure 9 Requirements screen

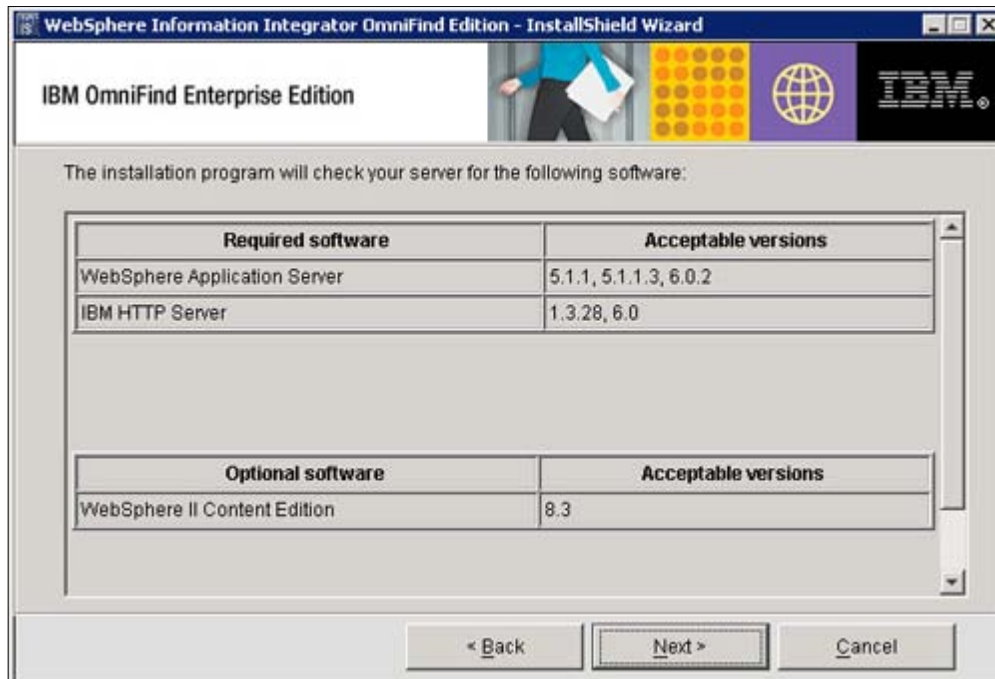


Fig (9)

10. Read and acknowledge the detected software and system check results. You may scroll down for more information. No action needs to be taken, simply click **Next**.

Figure 10 Detected software

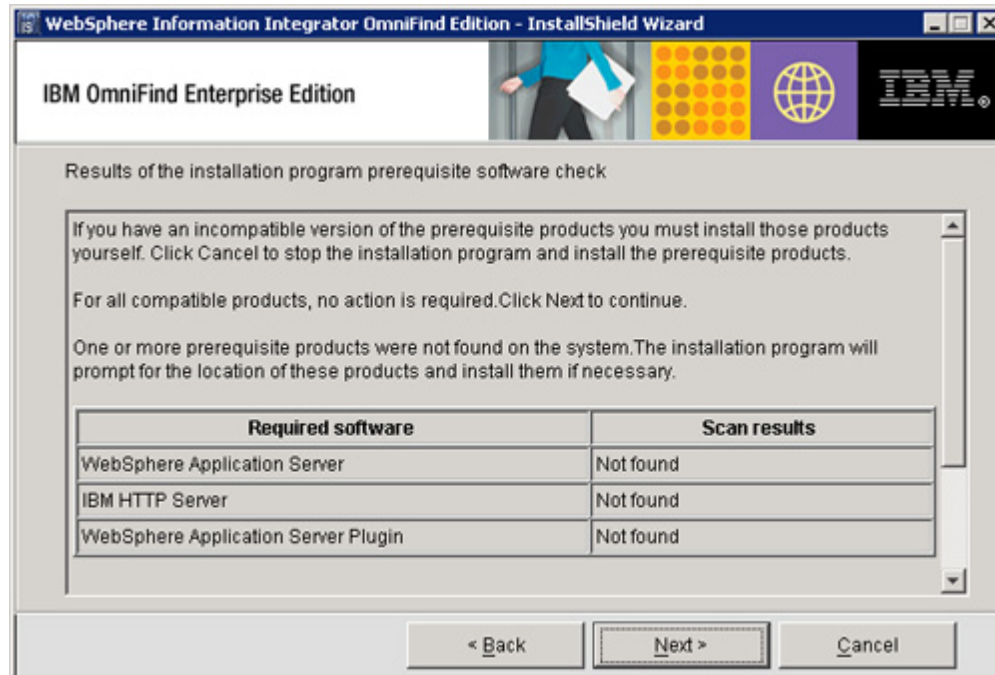


Fig (10)

11. Select **Install WebSphere Information Integrator Content Edition connectors**.
Figure 11 Select Content Edition connectors

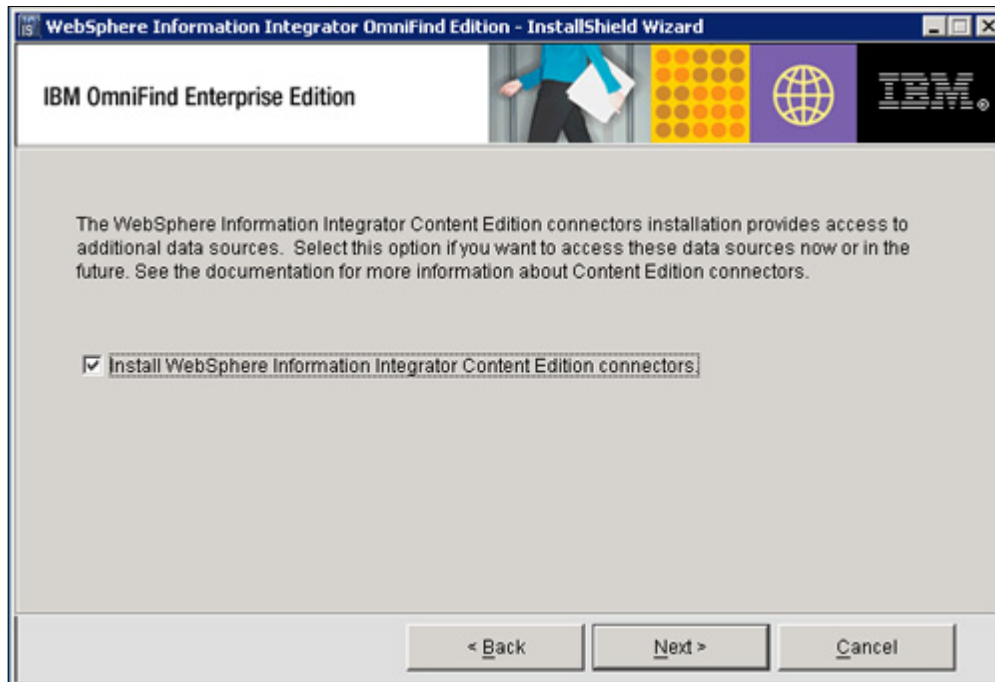


Fig (11)

(Download the required software)

12. Select defaults, and click **Next**.

Figure 12 Specifying hostname, port, and data storage port

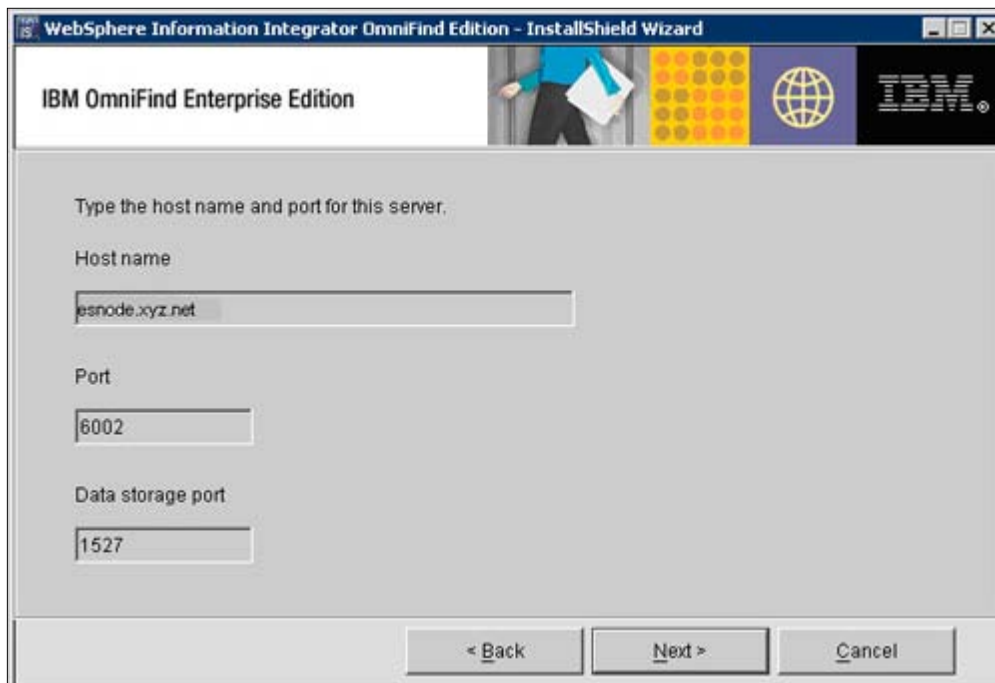


Fig (12)

13. Select the default **Medium** for memory configuration size.
Figure 13 Memory configuration

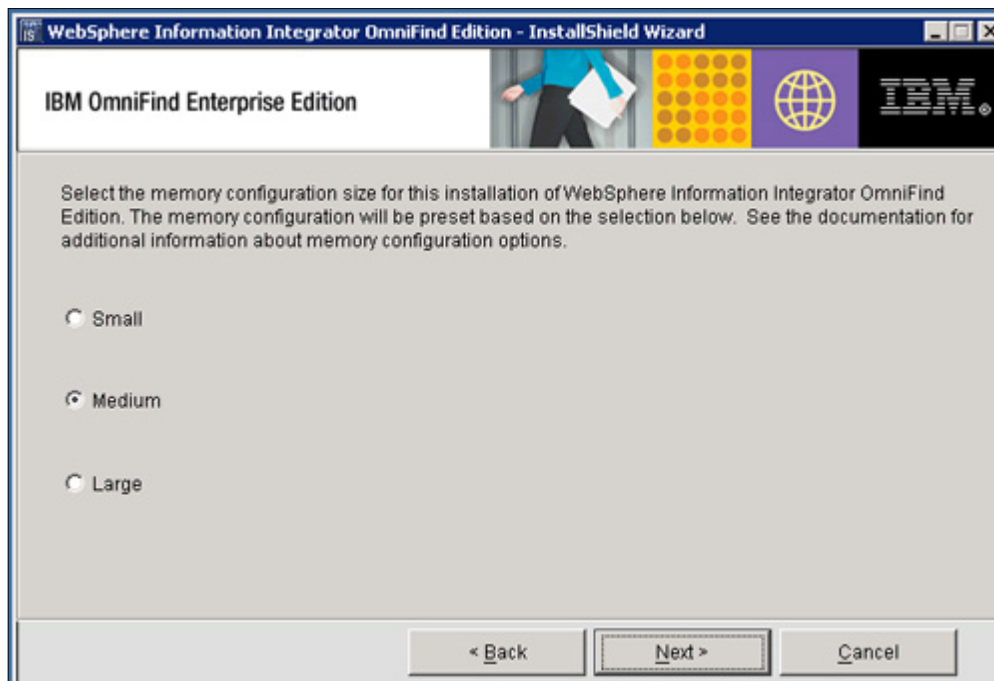


Fig (13)

Info-Center Link:

http://publib.boulder.ibm.com/infocenter/discover/v8r4/topic/com.ibm.discovery.es.in.doc/install_reqs/iysrmemory.htm

14. Select **Install WebSphere Application Server** – - the refresh pack can be installed after the installation completes or use the existing installation.

Figure 14 Install WebSphere Application Server

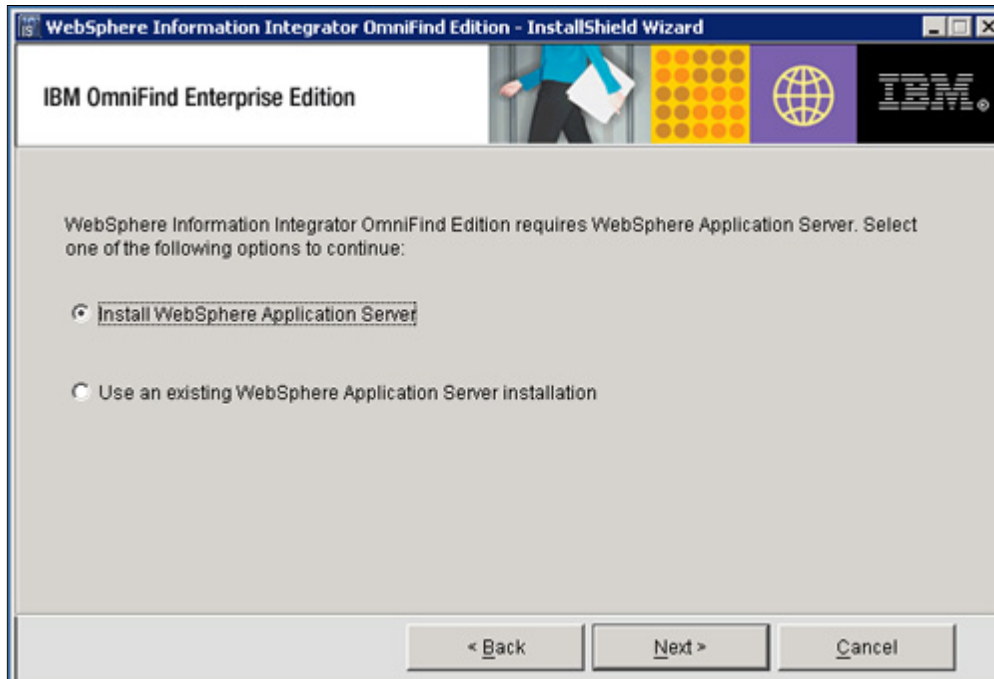


Fig (14)

15. Select the installation directory for WebSphere Application Server.

Figure 15 WAS installation directory

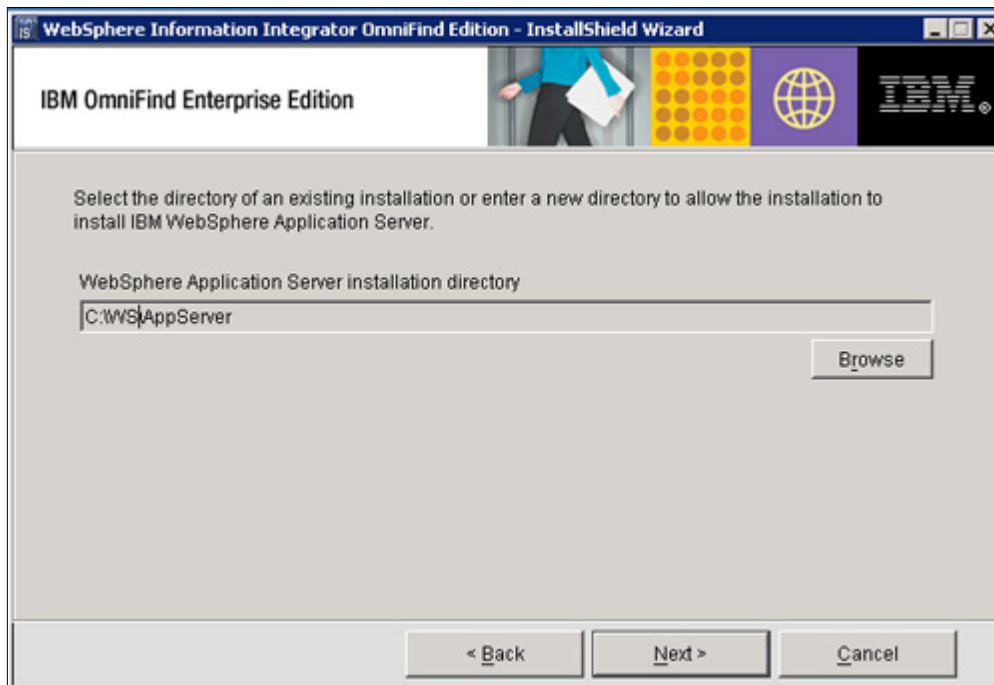


Fig (15)

16. Select the installation directory for WAS plug-in.
Figure 16 WAS plug-in directory

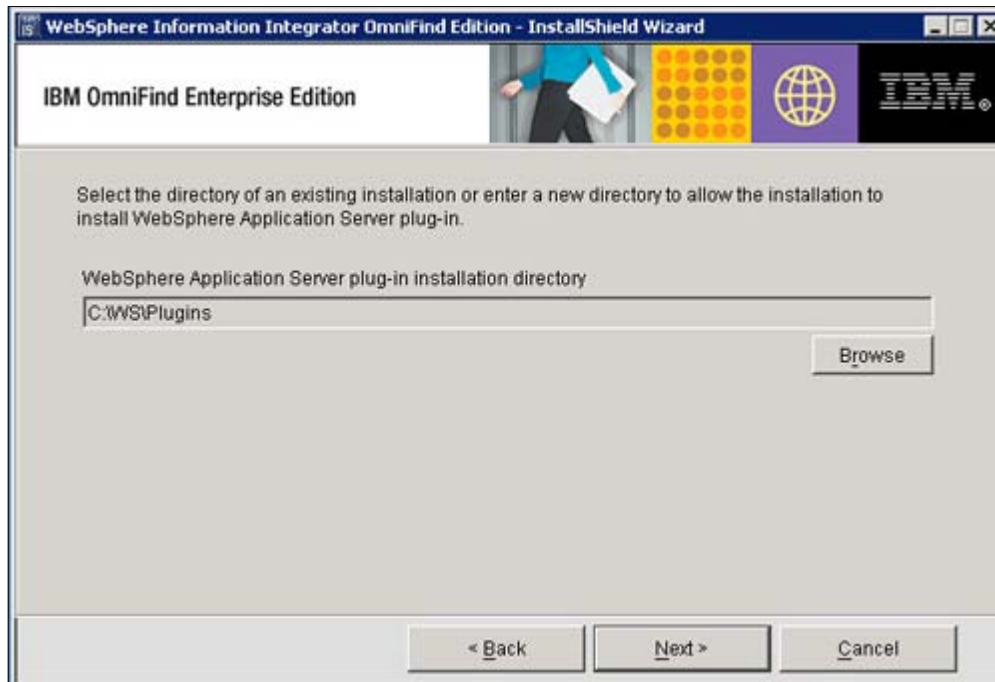


Fig (16)

17. Select the installation directory for the HTTP server
Figure 7 Specifying HTTP server directory

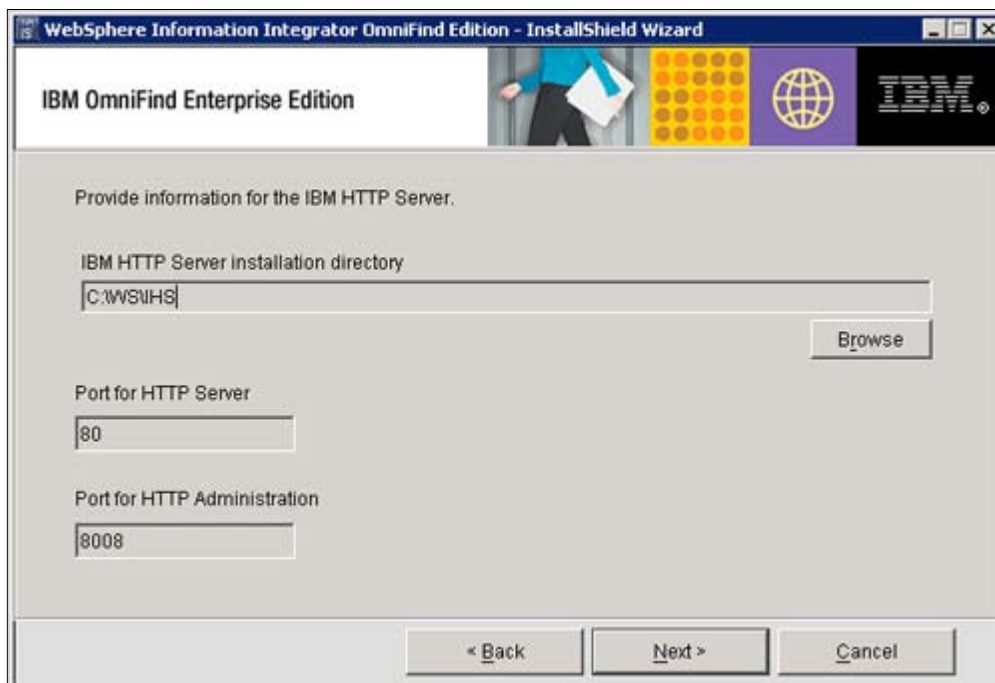


Fig (17)

18. Review and accept defaults for the WAS configuration, and select **Next**.
Figure 28 Review WAS configuration

WebSphere Information Integrator OmniFind Edition - InstallShield Wizard

IBM OmniFind Enterprise Edition

Enter a node name for this instance of WebSphere Application Server. The node name is used for administration and must be unique within its group of nodes (cell).

esnode

Enter the host name for this installation of WebSphere Application Server. Use the fully qualified DNS name, short DNS name, or the IP address for this server.

esnode.xyz.net

Enter the server name for the IBM HTTP server that was created by the WebSphere plug-in. If the WebSphere plug-in was installed with the default settings, this field does not need to be modified.

webserver1

< Back Next > Cancel

Fig (18)

19. Review and accept defaults port settings, and select **Next**.
Figure 19 Review port settings

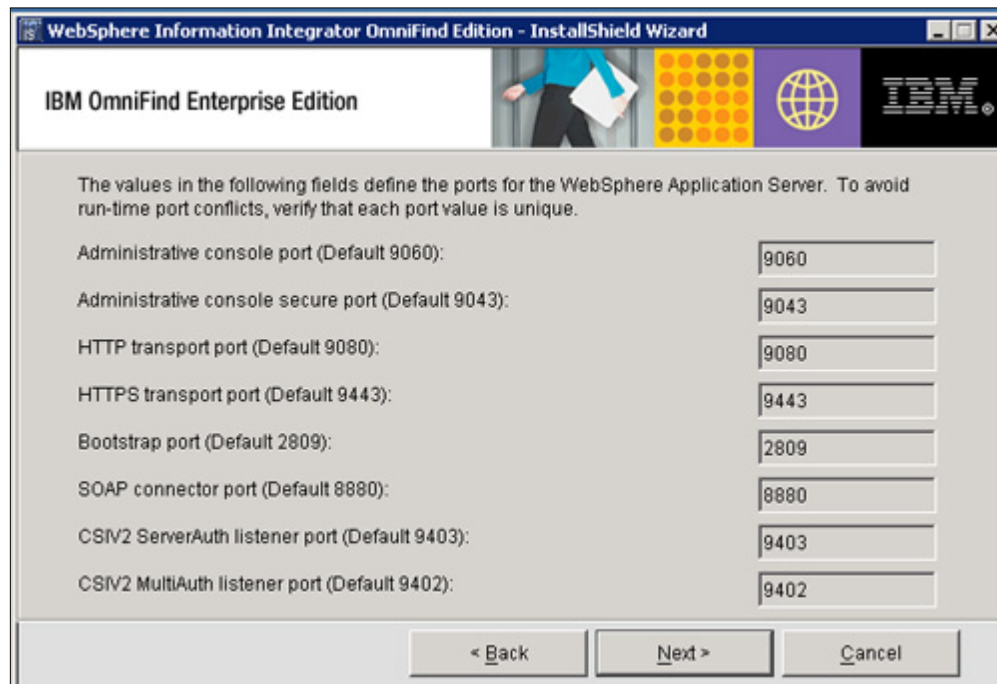


Fig (19)

CAUTION:

- Ensure that the mentioned ports are available, free and accessible for the server.
- Review the default port numbers that are used in an enterprise search system so that you can avoid port conflicts when you configure resources or assign port numbers to other applications.
- If you configure a firewall, you must explicitly enable access to particular port numbers. You must also ensure that all enterprise search servers are inside the firewall.

20. Accept defaults and ensure availability of ports.

Figure 20 Verifying ports

WebSphere Information Integrator OmniFind Edition - InstallShield Wizard

IBM OmniFind Enterprise Edition

The values in the following fields define the ports for the WebSphere Application Server. To avoid run-time port conflicts, verify that each port value is unique.

SAS SSL ServerAuth port (Default 9401):	9401
ORB listener port (Default 9100):	9100
High availability manager communication port (Default 9353):	9353
Service Integration port (Default 7276):	7276
Service Integration Secure port (Default 7286):	7286
Service Integration MQ Interoperability port (Default 5558):	5558
Service Integration MQ Interoperability Secure port (Default 5578):	5578

< Back Next > Cancel

Fig (20)

- For the following two steps, ensure that you have appropriate user information. Identify a user (it can be the search admin user; in other words, esadmin) who has appropriate user rights.
- Specifically for this user the following properties are necessary:
- Should have administrative rights
- Inside Local Security Policy, the User Rights Assignments should allow the user to
- Log on as service
- Act as part of an Operating System
- Preferably, use the previously defined search engine administrative user (e.g. local user esadmin).
- In case later global security is turned on at the WAS level, you use the domain user once that user has been granted the above two User Rights.

21. Accept both **Run WebSphere Application Server as a service** and **Run IBM HTTP Server as a service**:
Figure 21 Using Windows services

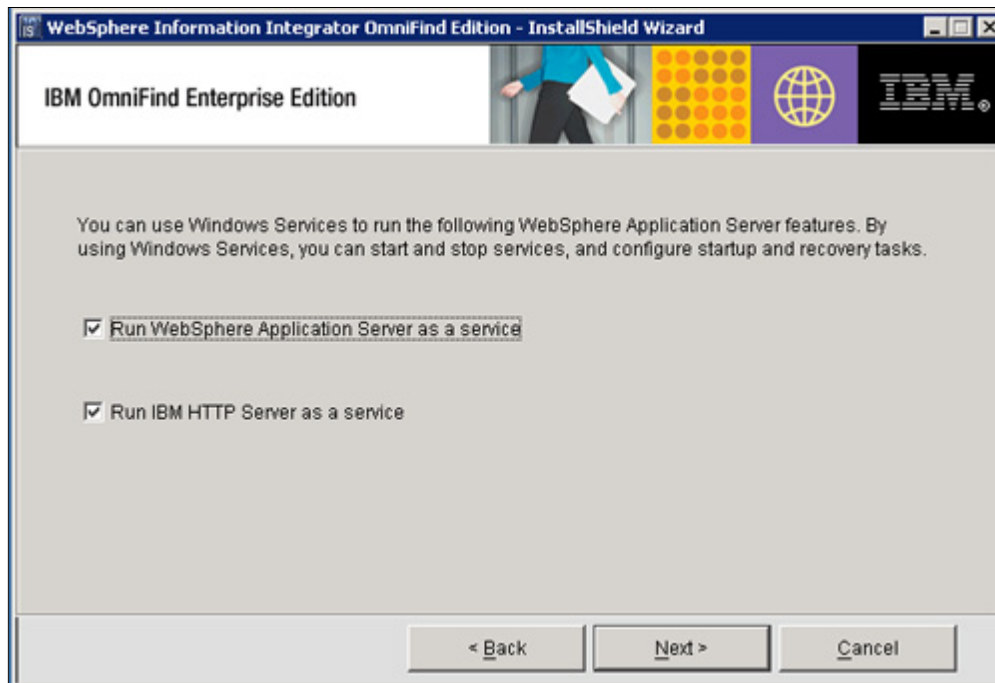


Fig (21)

22. Enter the same ID and password as defined earlier.
Figure 22 ID and password for WebSphere services

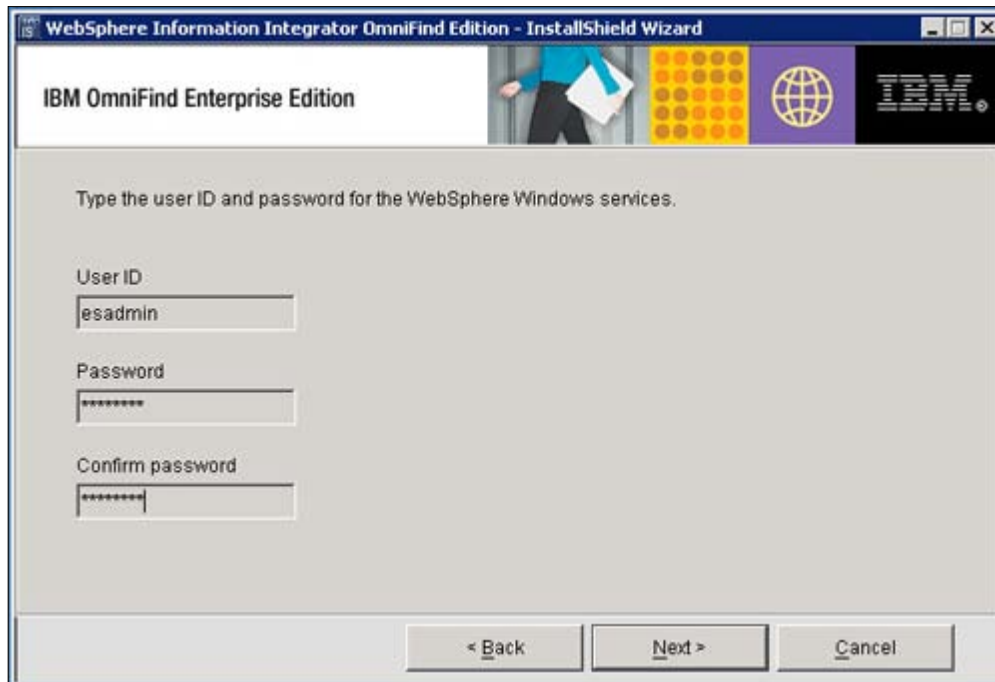


Fig (22)

23. Select English (selected by default) and any other language that is required and supported
Figure 23 Language selection



Fig (23)

24. Review and accept the identified options, or change them if you see any anomaly.
Figure 24 Review options

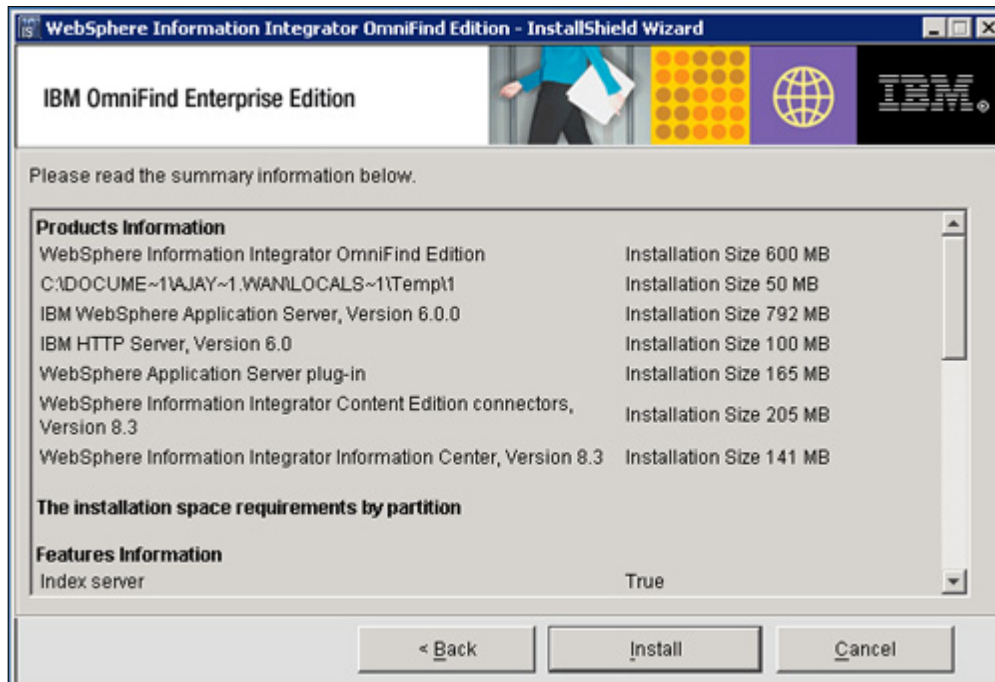


Fig (24)

25. Select the installer directory for WAS 6.0
Figure 25 Selecting installer directory

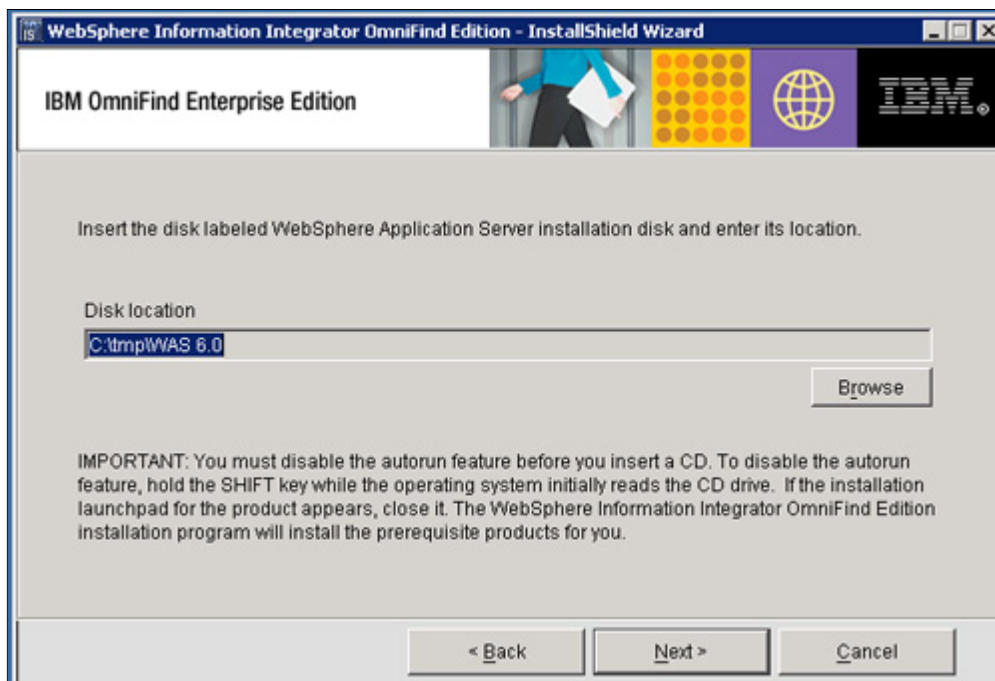


Fig (25)

26. Allow the installer to install WAS 6.0

Figure 26 Installing WAS

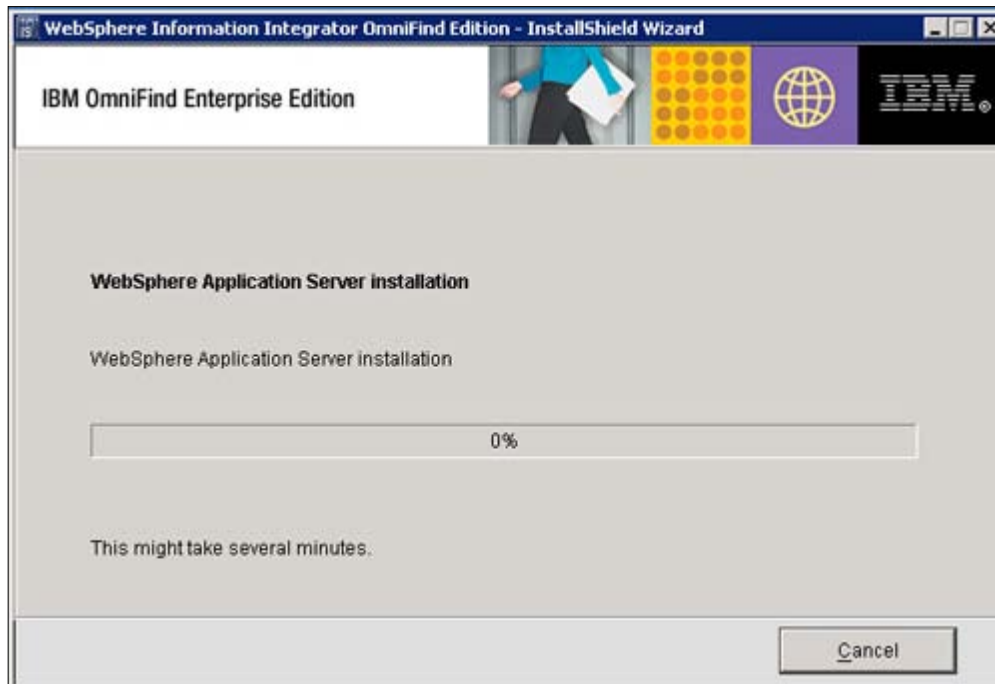


Fig (26)

27. Select installer files directory for WebSphere Information Integrator Content Edition 8.3.

Figure 27 Directory for IICE

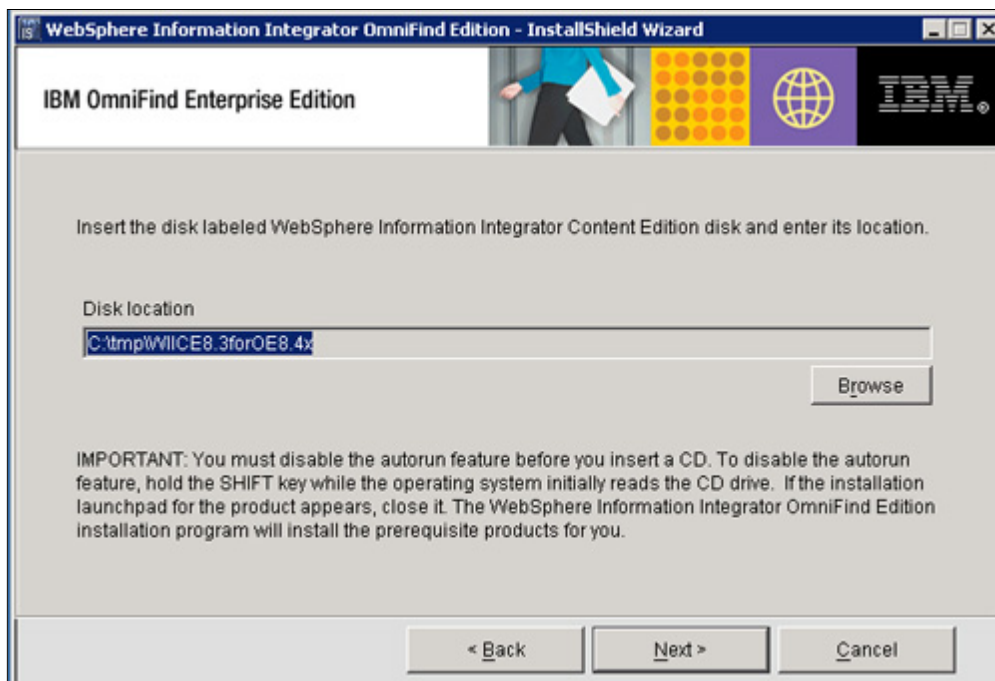


Fig (27)

28. The installer automatically starts the OmniFind installation on the completion of the previous step. Take no action and allow it to proceed to completion.

Figure 28 Installing OmniFind

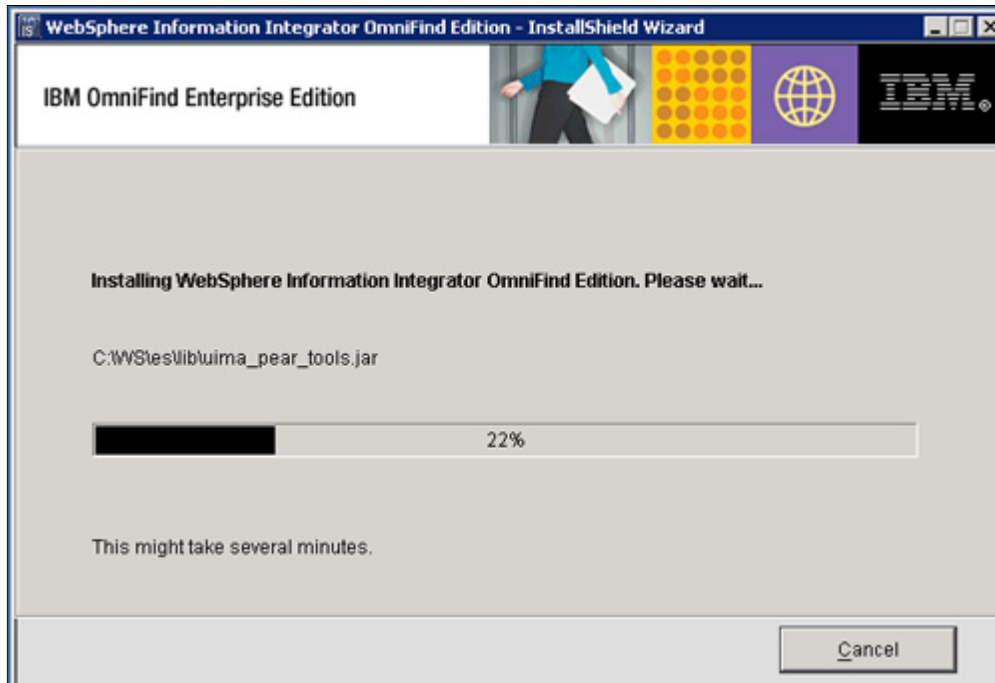


Fig (28)

29. Accept defaults to display all results.

Figure 29 Accept defaults to display all results

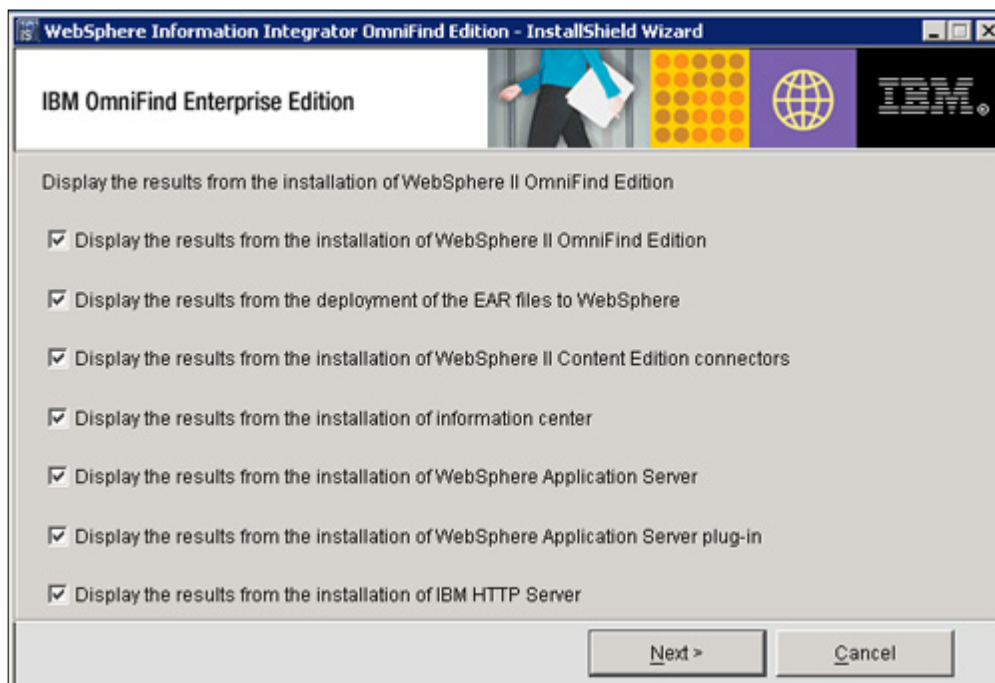


Fig (29)

30. Figure 32 illustrates the screen you get when Omnifind is successfully installed.
Figure 30 Successful OmniFind install

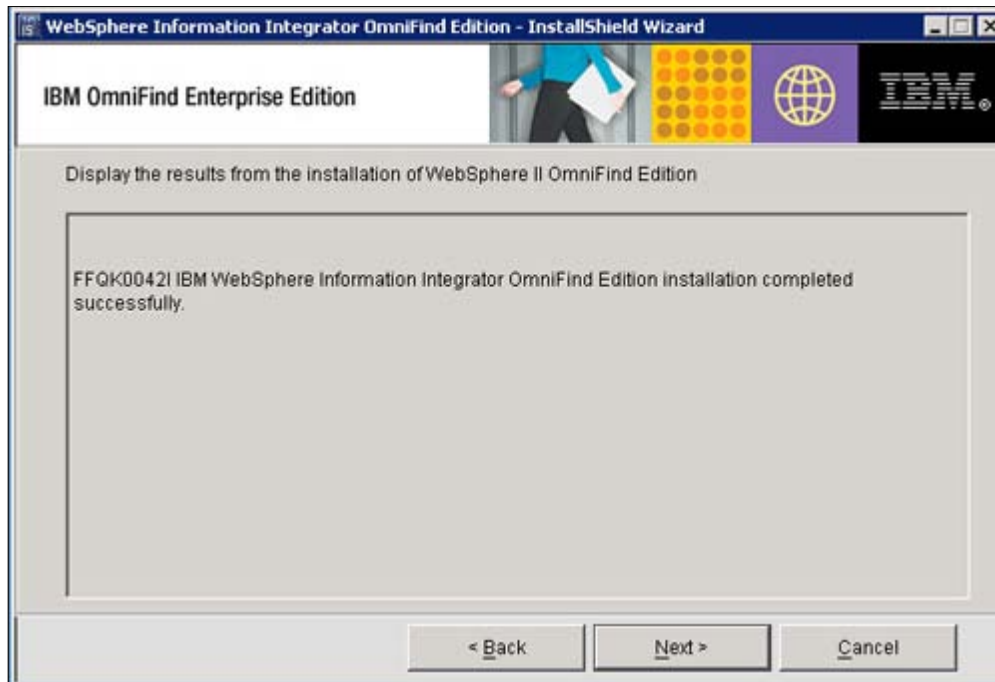


Fig (30)

31. Review the next screen and ensure all components are reported as having been installed or deployed successfully.
Figure 31 Review install results

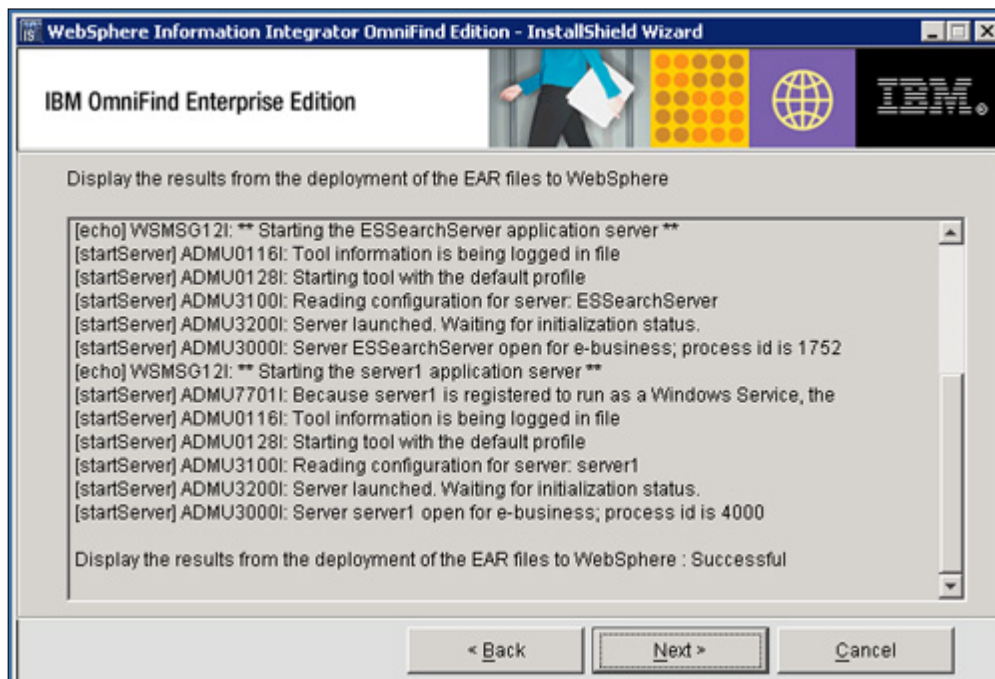


Fig (31)

32. Finally, Figure 34 shows the screen you see when the installation is successful:
Figure 32 Successful deployment

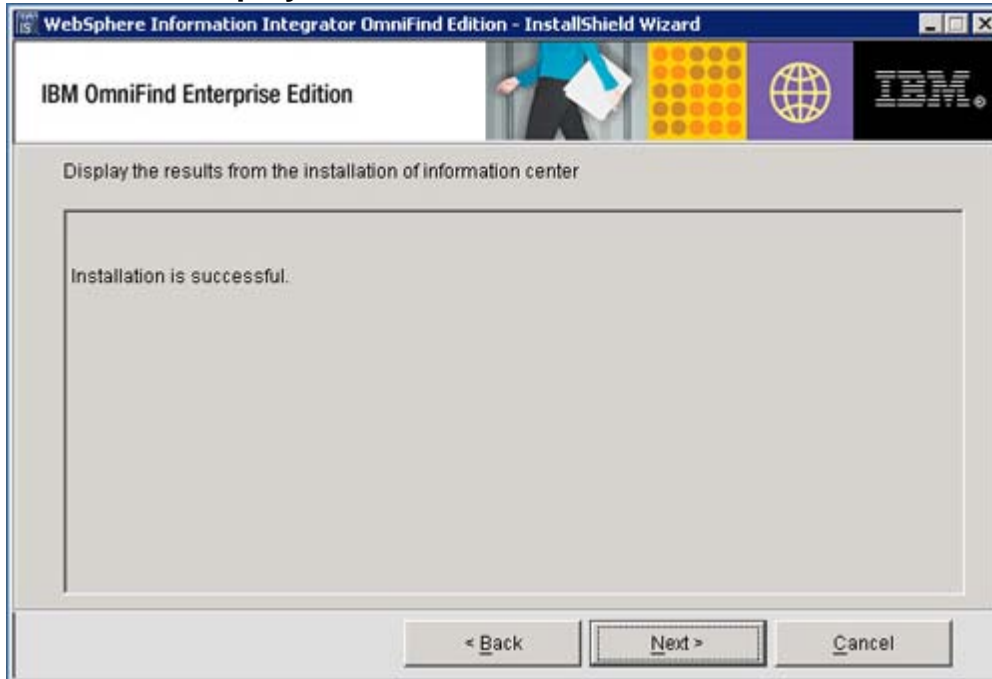


Fig (32)

33. Review and ensure successful deployment of WAS.
Figure 33 Successful deployment of WAS

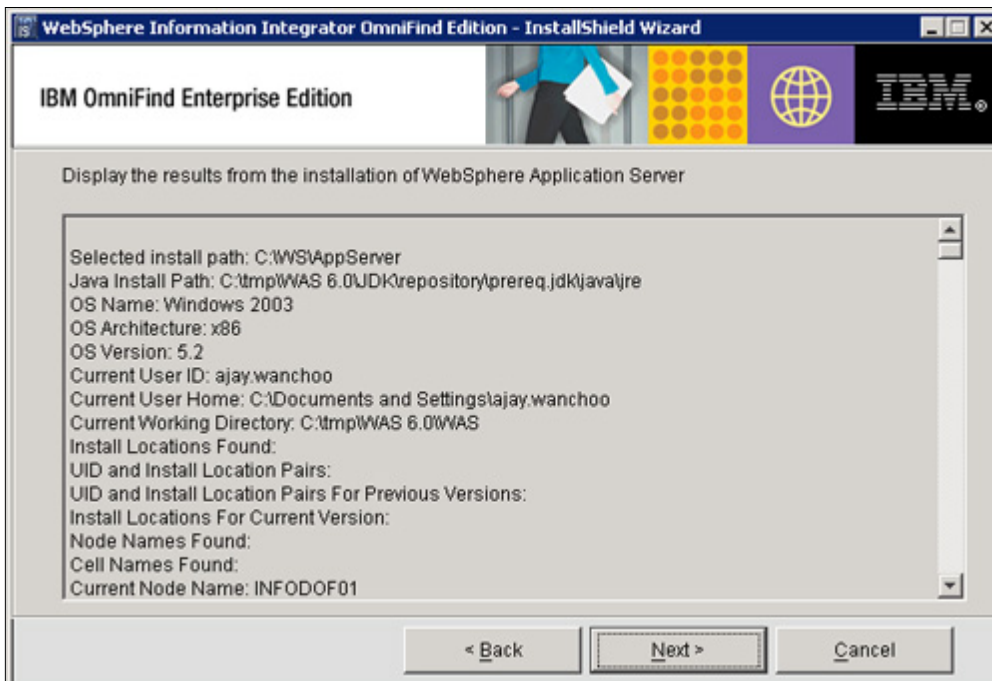


Fig (33)

34. Review and accept WAS Plug-in deployment results. It should be successfully deployed.

Figure 34 WAS plug-in deployment

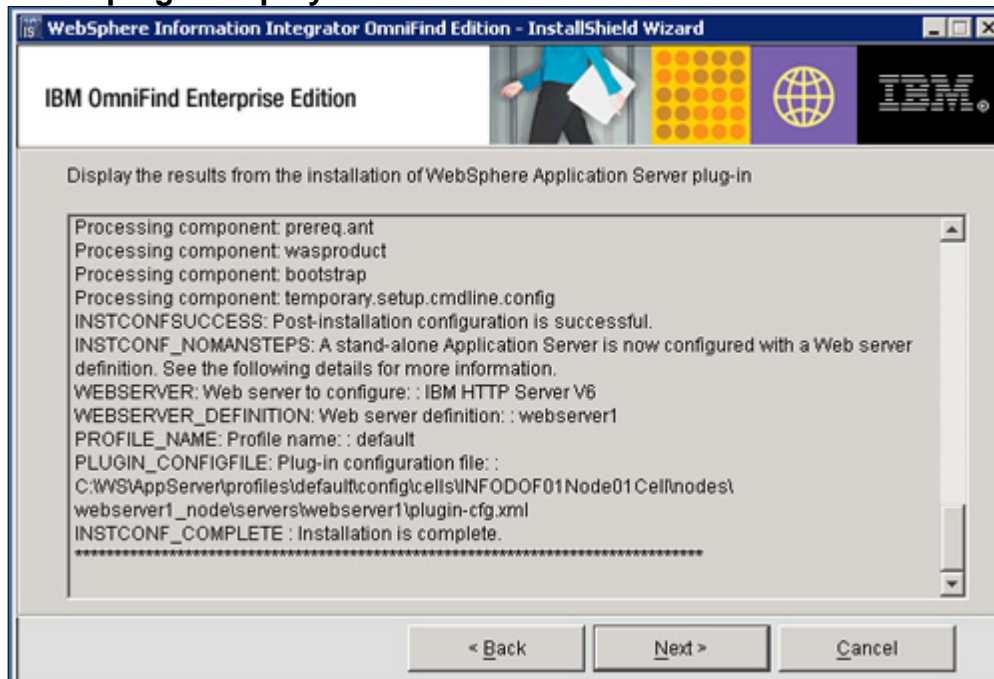


Fig (34)

35. Review and accept deployment results for HTTP Server. Ensure that all components are deployed successfully.

Figure 35 HTTP server deployment

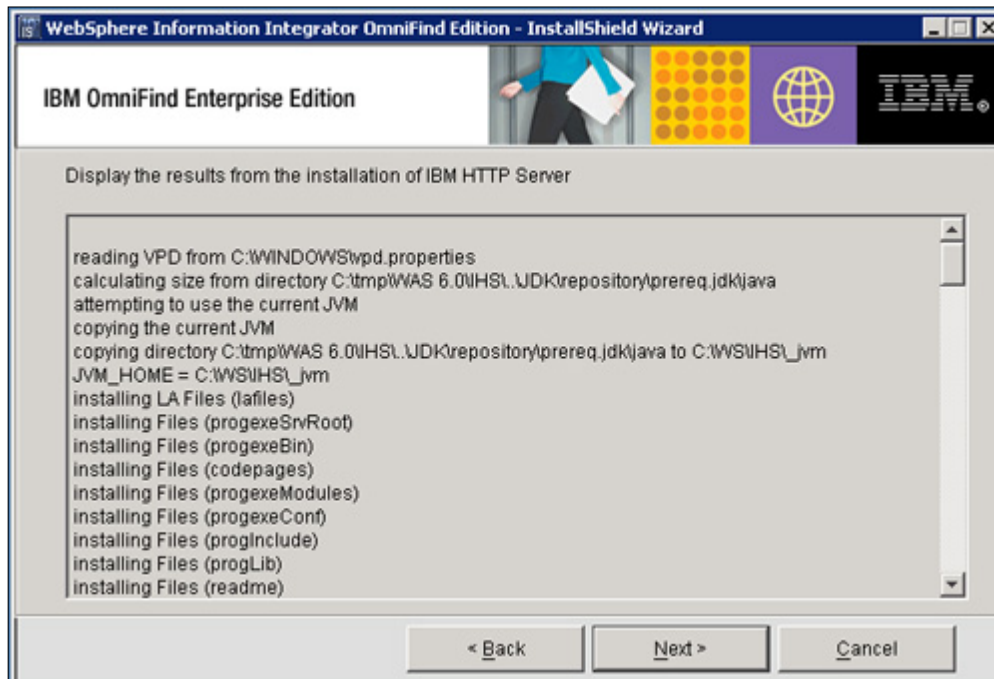


Fig (35)

NOTE:

- It is very important to ensure that all components have installed correctly by this stage. Carefully review the logs mentioned in the previous dialogs. Select the **Back** button, if necessary, to review the comments. You may scroll down to see all the logs.
- If any errors are reported, seriously consider re-installing the product after reviewing the prerequisites.
- **DO NOT PROCEED UNTIL ALL REQUIRED COMPONENTS HAVE INSTALLED CORRECTLY.**

36. Unselect **Start First Steps** and select **Yes, restart my computer** and click **Finish**.
Figure 36 Completion of install process

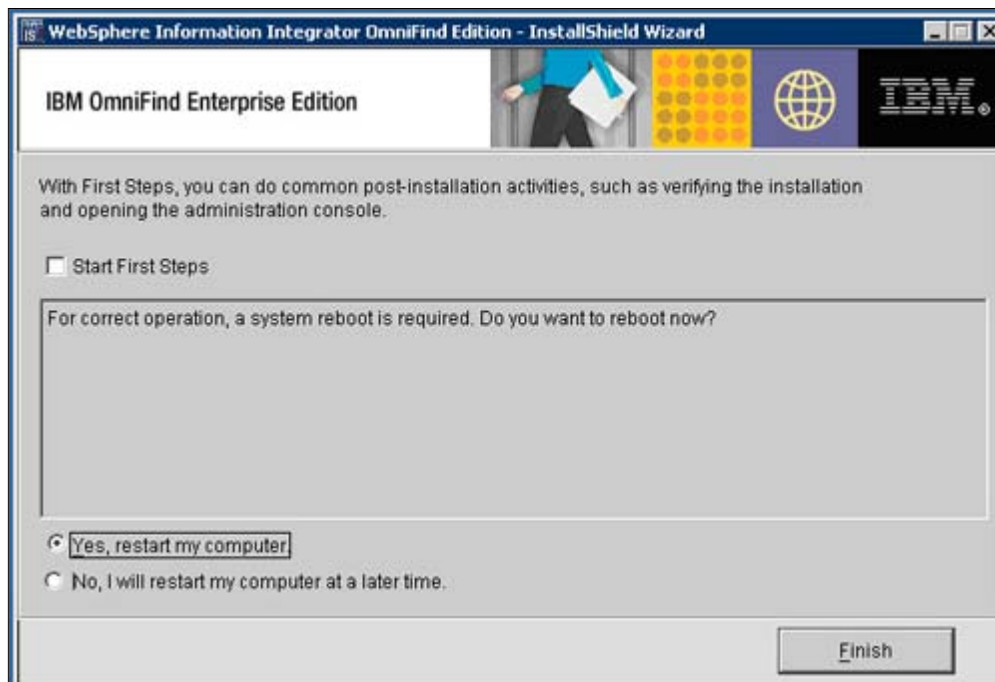


Fig (36)

37. Your computer now restarts.

Step 2: Verify installation

Follow these steps to verify that you have installed all products correctly:

1. Start the HTTP server.
2. Start the WAS server ESSearchServer.
3. From the OMNIFIND_HOME\bin directory, run the command: `startccl`.
4. From the same directory, run: `esadmin start`.
5. Run FirstSteps from the Start menu, start the server and run verification.

Figure 37 shows how it should appear:

Figure 37 Running verification

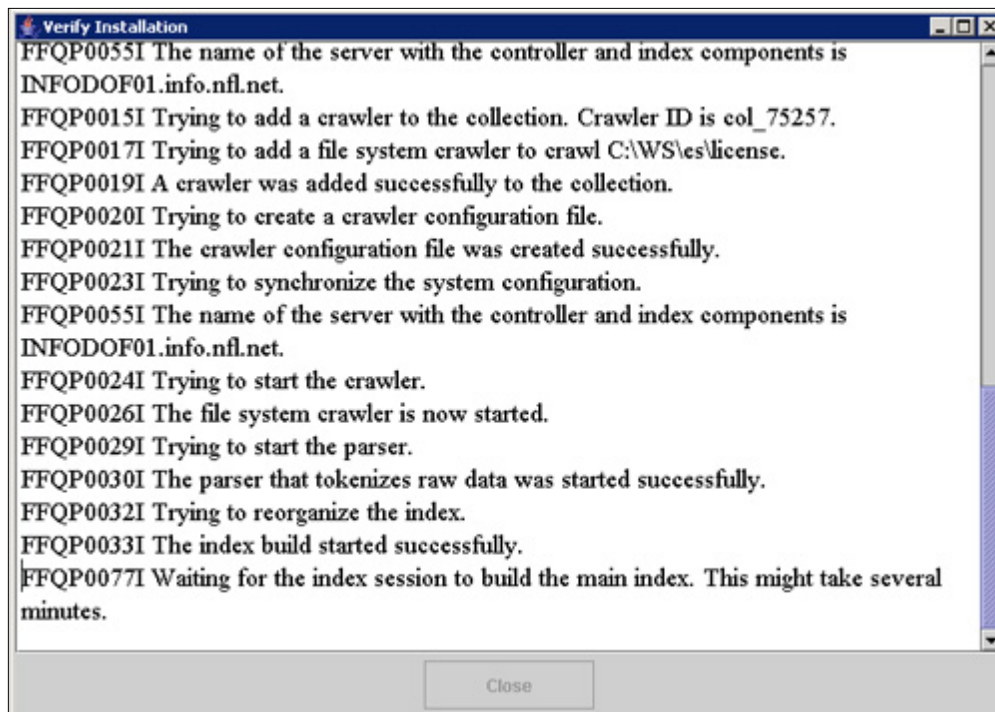


Fig (37)

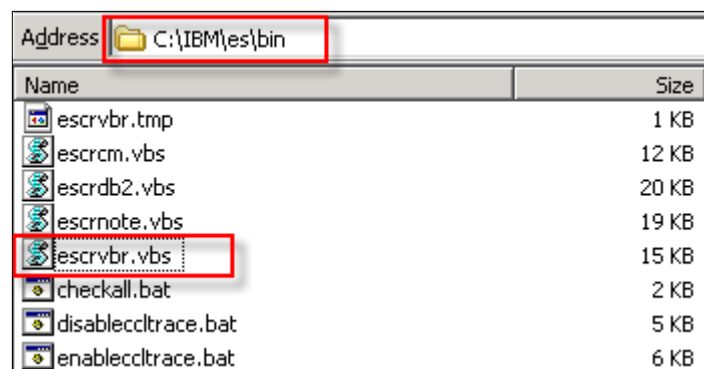
Integrating OmniFind with WebSphere Portal

Procedure for integration with Portal

In order to integrate OmniFind with WebSphere Portal, you must do the following activities:

1. Enable crawler setup for the Portal Pages and WCM content. To do this, you must deploy ESPACServer.ear application on the portal cluster through the WAS ND admin console.
2. Enable crawler setup for the Portal Document Manager which is achieved through the WebSphere Information Integrator Content Edition connector. To do this, you must install WebSphere Information Integrator Content Edition (connectors only option) on the individual portal servers directly and deploy the services.war webapp on the portal cluster through the WAS ND admin console.
3. Prepare the OmniFind server by executing the escvbr.vbs script on the OmniFind server. The actual creation of the crawlers on the OmniFind server happens later from the admin console once the preparatory work has been completed. For the PDM crawler, you should setup the WebSphere Information Integrator Content Edition connector to connect to the RMIServerBridge on the portal servers through RMI.

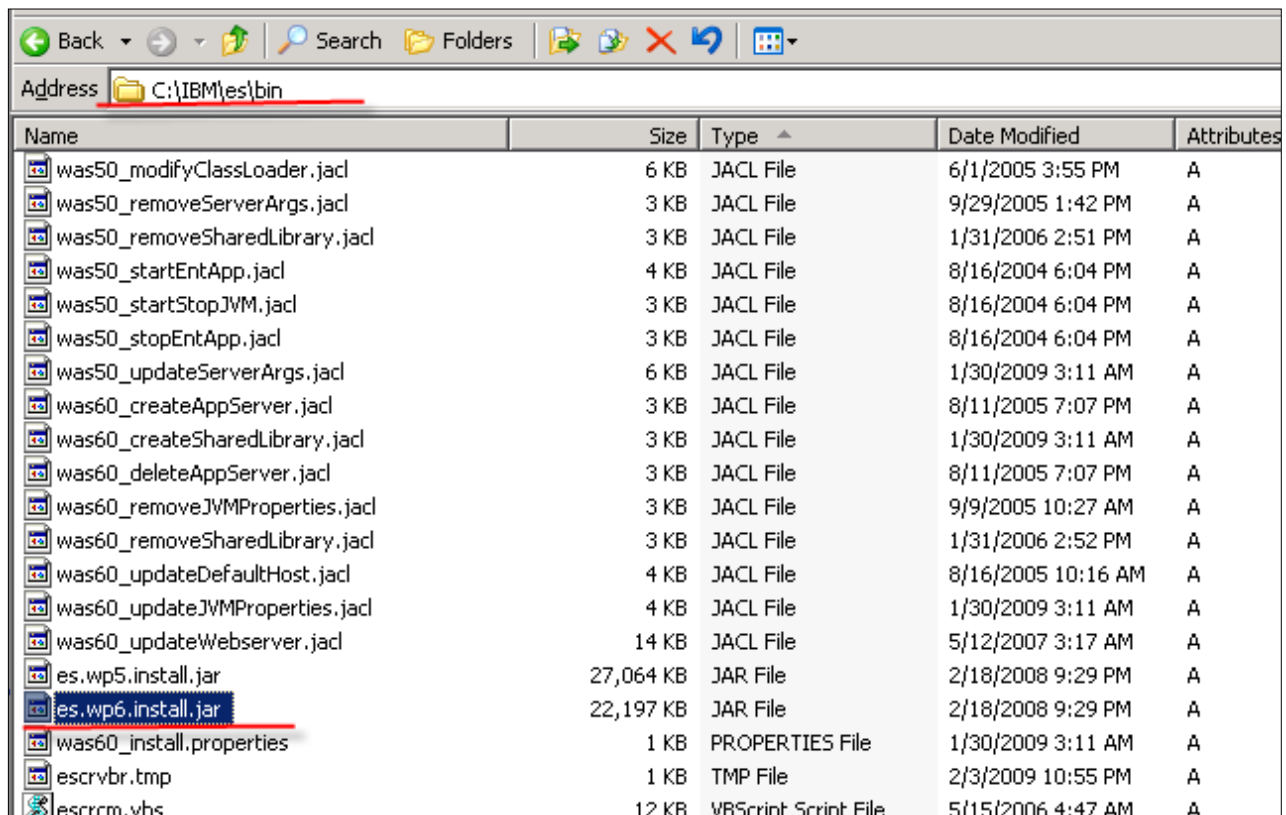
Run the Script File



4. Deploy the customized search Portlet on the portal servers
5. Modify the search bar on the portal to use the customized search portlet rather than the default search from Portal.

The files required to integrate enterprise search with WebSphere Portal are provided in the es.wp6.install.jar file. When you unpack this file, the following files are extracted:

- ESSearchPortlet.war
- ESPACServer.ear
- esapi.jar
- es.search.provider.jar
- es.security.jar
- Search application source type icons that are used in the search provider results page
- Script, batch, XML, and JACL files that are needed by the installation



The screenshot shows a Windows Explorer window with the address bar set to C:\IBM\es\bin. The main pane displays a list of files with columns for Name, Size, Type, Date Modified, and Attributes. The file 'es.wp6.install.jar' is selected and highlighted in blue.

Name	Size	Type	Date Modified	Attributes
was50_modifyClassLoader.jacl	6 KB	JACL File	6/1/2005 3:55 PM	A
was50_removeServerArgs.jacl	3 KB	JACL File	9/29/2005 1:42 PM	A
was50_removeSharedLibrary.jacl	3 KB	JACL File	1/31/2006 2:51 PM	A
was50_startEntApp.jacl	4 KB	JACL File	8/16/2004 6:04 PM	A
was50_startStopJVM.jacl	3 KB	JACL File	8/16/2004 6:04 PM	A
was50_stopEntApp.jacl	3 KB	JACL File	8/16/2004 6:04 PM	A
was50_updateServerArgs.jacl	6 KB	JACL File	1/30/2009 3:11 AM	A
was60_createAppServer.jacl	3 KB	JACL File	8/11/2005 7:07 PM	A
was60_createSharedLibrary.jacl	3 KB	JACL File	1/30/2009 3:11 AM	A
was60_deleteAppServer.jacl	3 KB	JACL File	8/11/2005 7:07 PM	A
was60_removeJVMProperties.jacl	3 KB	JACL File	9/9/2005 10:27 AM	A
was60_removeSharedLibrary.jacl	3 KB	JACL File	1/31/2006 2:52 PM	A
was60_updateDefaultHost.jacl	4 KB	JACL File	8/16/2005 10:16 AM	A
was60_updateJVMProperties.jacl	4 KB	JACL File	1/30/2009 3:11 AM	A
was60_updateWebserver.jacl	14 KB	JACL File	5/12/2007 3:17 AM	A
es.wp5.install.jar	27,064 KB	JAR File	2/18/2008 9:29 PM	A
es.wp6.install.jar	22,197 KB	JAR File	2/18/2008 9:29 PM	A
was60_install.properties	1 KB	PROPERTIES File	1/30/2009 3:11 AM	A
esrvbr.tmp	1 KB	TMP File	2/3/2009 10:55 PM	A
esrcrm.vbs	12 KB	VBScript Script File	5/15/2006 4:47 AM	A

When you unpack this file you will get all required files.

Perform these steps from the admin console of the Deployment Manager of the Portal.

1. Inside Enterprise Applications, select the option to install a new application. Deploy ESPACServer.ear with default options to the Portal. Follow the screenshots below

Portal and Workplace Web Content Management (WCM) crawler setup

1. Login into the WAS ND admin console and deploy the ESPACServer.ear application onto the portal cluster.
2. Browse to the location where the ESPACServer.ear is available. You should be able to find it by unjar-ing the es.wp6.install.jar file on the OmniFind server in the directory C:\WS\es\bin\es.wp6.install.jar

Figure Preparing for the application installation

Preparing for the application installation

Specify the EAR, WAR or JAR module to upload and install.

Path to the new application.

Local file system

Specify path
C:\WS\es\bin\es.wp6.install.jar

Remote file system

Specify path

Context root
 Used only for standalone Web modules (.war files)

3. Accept all defaults until you reach the following screen:
Installation options

The screenshot shows the 'Install New Application' dialog box with the 'Select installation options' step selected. The dialog has a blue header bar with the title 'Install New Application' and a help icon. Below the header, it says 'Specify options for installing enterprise applications and modules.' On the left, there is a vertical navigation pane with four steps: 'Step 1: Select installation options' (highlighted with a yellow arrow), 'Step 2: Map modules to servers', 'Step 3: Map virtual hosts for Web modules', and 'Step 4: Summary'. The main area is titled 'Select installation options' and contains the following options:

- Pre-compile JSP
- Directory to install application: [text box]
- Distribute application
- Use Binary Configuration
- Deploy enterprise beans
- Application name: [text box containing 'ESPACServer']
- Create MBeans for resources
- Enable class reloading
- Reload interval in seconds: [text box]
- Deploy Web services
- Validate Input off/warn/fail: [dropdown menu showing 'warn']
- Process embedded configuration

At the bottom of the dialog, there are two buttons: 'Next' and 'Cancel'.

Accept defaults until you get the option to map modules to servers. Map the ESPACServer.ear to the wpsCluster01 (if the environment is cluster base) and select **Next**. Proceed to the end and click **Finish**. When given the option to synchronize to all nodes, accept it.

4. On the OmniFind server, login to the Search admin console and begin the process to create Collection which contains Portal crawler:

Installation options

The screenshot shows the OmniFind Enterprise Edition Search Admin Console. The address bar displays the URL: <http://omnifinder/ESAdmin/collections.do?command=display>. The page title is "OmniFind Enterprise Edition". A navigation menu includes: Collections, External Sources, System, Security, Search Customizer, Log Out, Help, and About. The main content area is titled "Collections" and contains a link for "Help for this page". At the bottom, there are two buttons: "Create Collection" (highlighted with a red circle) and "Collection Wizard". The page also shows a timestamp: "Last refreshed: Tuesday, February 17, 2009 10:23:46 PM CST" and a "Refresh" button.

5. Name the collection any name and set all other required option according to your need.

OmniFind Enterprise Edition

Collections External Sources System Security Search Customizer Log Out Help About

Collections > Create Collection

Create a Collection

[Help for this page](#)

A collection contains the various sources that users can search with a single query.

After you click **OK**, you return to the Collections view.
From the Collections view, click the **Edit** icon for your new collection to add content to it.

General options that can change after the collection is created

Collection name:
PortalUnsecureCollection

Description:
PortalUnsecureCollection

Estimated number of documents:
(This value is used to estimate resources, not to enforce a limit.)
1000000

General options that cannot change after the collection is created

* Collection security (required for enforcing document-level security):
Do not enable security for the collection

* Document importance (static ranking model):
Rank by the number of links to the document

Location for collection data:
 Default location
 Custom location

Collection ID:
 Default ID
 Custom ID
(Valid characters are: a-z, A-Z, 0-9, underscore(_), and hyphen(-); the ID is case sensitive.)

Parse options

* Categorization type:
None

N-gram segmentation
(This option cannot change after the collection is created):
Do not enable n-gram segmentation

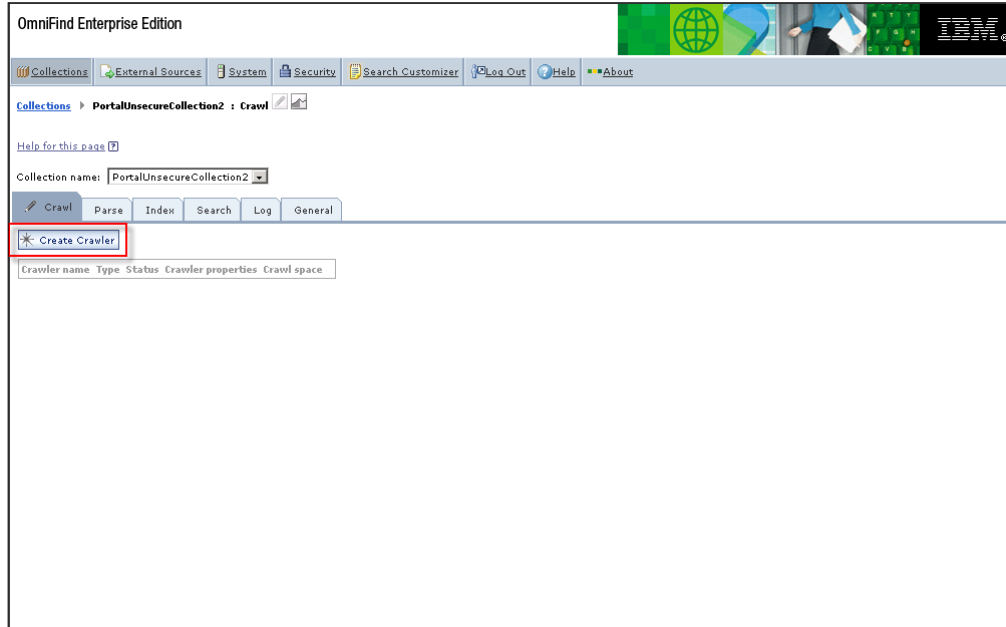
Search option

* Language to use:
English

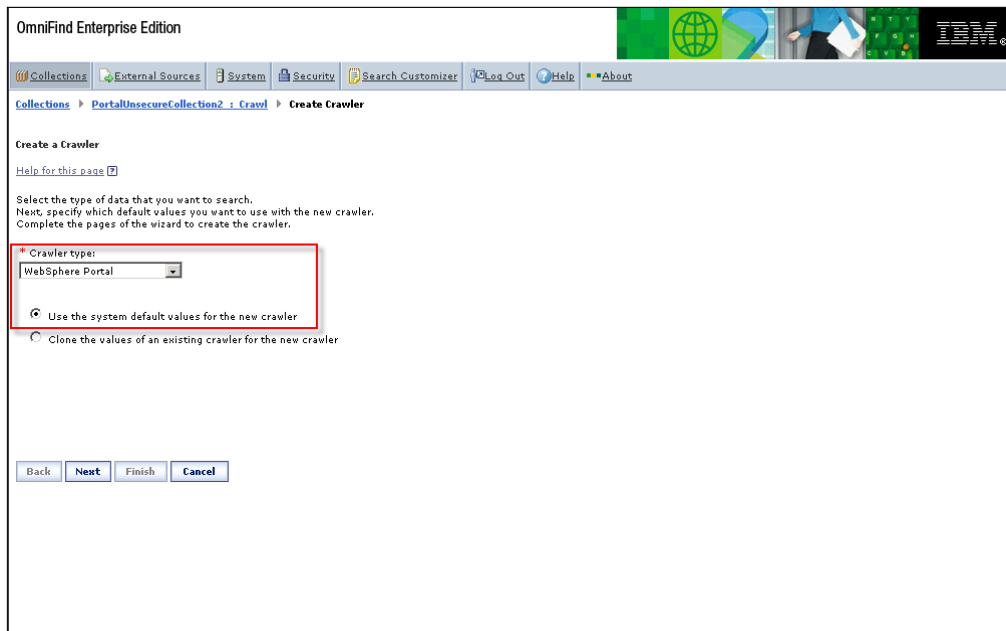
OK Cancel

Then click OK.

6. Create Crawler for this Collection.



7. Select the Crawler type (as WebSphere portal)



Name the Crawler type and check the Use the system default values for the new crawler the check box and click Next.

Now you need WebSphere Portal site URL to copy into the WebSphere Portal Site to Crawl. To get portal URL follow the following steps.

8. Get a URL to be searched from the portal server by following these steps:
 - a. Ensure that WebSphere Portal Server is started, and then log in to WebSphere Portal as an administrator.
 - b. Click **Administration** in the lower left corner.
 - c. Click **Manage Search** from the navigation area on the left.



- d. On the Manage Search page, from the Search service options, click **Default Portal Search Service**.

The screenshot shows the 'Manage Search' page in the WebSphere Portal administration console. The breadcrumb trail is 'Administration > WebSphere Portal > Search Administration > Manage Search'. The left-hand navigation menu is expanded to 'Search Administration > Manage Search'. The main content area, titled 'Manage Search', contains a 'Manage Search' section with the following text: 'Choose from the links below to create and manage Search Services, Search Collections, or Search Scopes. Select Search Services to manage Portal or Content Model Search Services and subsequently, the search collections and content sources contained within. Select Search Collections to display and manage all search collections across various search services. Select Search Scopes to manage the scopes that appear in the Search Center.' Below this text are three links: 'Search Services' (Create and modify search service types), 'Search Collections' (Create and modify collections of searchable content), and 'Search Scopes' (Create and modify search scope to deploy to user). The 'Search Collections' link is highlighted with a red rectangular box.

The screenshot shows the 'Manage Search' page in the WebSphere Portal administration console. The breadcrumb trail is 'Administration > WebSphere Portal > Search Administration > Manage Search'. The left-hand navigation menu is expanded to 'Search Administration > Manage Search'. The main content area, titled 'Manage Search', contains a 'Manage Search' section with the following text: 'Select a search service to view its collections. Use the buttons and icons to add, edit, or delete a search service.' Below this text is a 'New Search Service' button and a table of search services. The table has two columns: 'Search Services' and 'Status'. The 'Default Portal Search Service' is highlighted with a red rectangular box. The table also shows 'Default Content Model Search Service' and 'Default Portal Search Service' with a green checkmark in the status column and edit/delete icons.

Search Services	Status
Default Content Model Search Service	✓ [edit] [delete]
Default Portal Search Service	✓ [edit] [delete]

- e. In the Search Collections table, click **Portal Content** collection.
- f. In the Content Sources table, click the **Edit icon** on the far right (the pencil icon) next to Portal Content Source.

The screenshot shows the WebSphere Portal administration interface. The breadcrumb navigation is: Administration > WebSphere Portal > Search Administration > Manage Search > Portal Content. The left sidebar shows the navigation tree with 'Search Administration' > 'Manage Search' selected. The main content area is titled 'Manage Search' and shows the breadcrumb: Manage Search > Search Services > Default Portal Search Service > Portal Content. Below this, it indicates 'Search service: Default Portal Search Service' and 'Search collection: Portal Content'. A section titled 'Content Sources' contains a table with one entry: 'Portal Content Source' with 6 documents, last run on 1/30/09 at 19:05, and next run on 2/18/09 at 01:45. The table has an edit icon (pencil) highlighted in red. Below the table is a 'Search collection status information' section with details like location, language, and update schedule.

WebSphere Portal

Welcome

- Portal User Interface
 - Manage Pages
 - Themes and Skins
- Portlet Management
 - Web Modules
 - Applications
 - Portlets
 - Web Services
 - Web Clipping
- ACCESS
 - Users and Groups
 - Resource Permissions
 - User and Group Permissions
 - Credential Vault
 - Resource Policies
- Portal Settings
 - Global Settings
 - URL Mapping
 - Custom Unique Names
 - Supported Markups
 - Supported Clients
 - Import XML
- Portal Content
 - Document Libraries
 - Web Content Libraries
 - Syndicators
 - Subscribers
- Search Administration
 - Manage Search
- Portal Analysis
 - Frequent Users
 - Enable Tracing
- Virtual Portals
 - Manage Virtual Portals

Administration > WebSphere Portal > Search Administration > Manage Search > Portal Content

Search: All Sources

WebSphere Portal

Manage Search

Manage Search > Search Services > Default Portal Search Service > Portal Content

Search service: Default Portal Search Service Search collection: Portal Content

Content Sources

Use the icons and buttons below to create a content source, refresh the content source information, view schedulers, start and stop crawling, verify the URL address of a content source, edit a content source, and delete a content source. Scopes that reference this collection and its content sources can return different results.

New Content Source Refresh

Content Source Name	Documents	Run Time	Last Run	Next Run	Status
Portal Content Source	6	14:04:57	1/30/09, 19:05	2/18/09, 01:45	Idle

Page 1 of 1

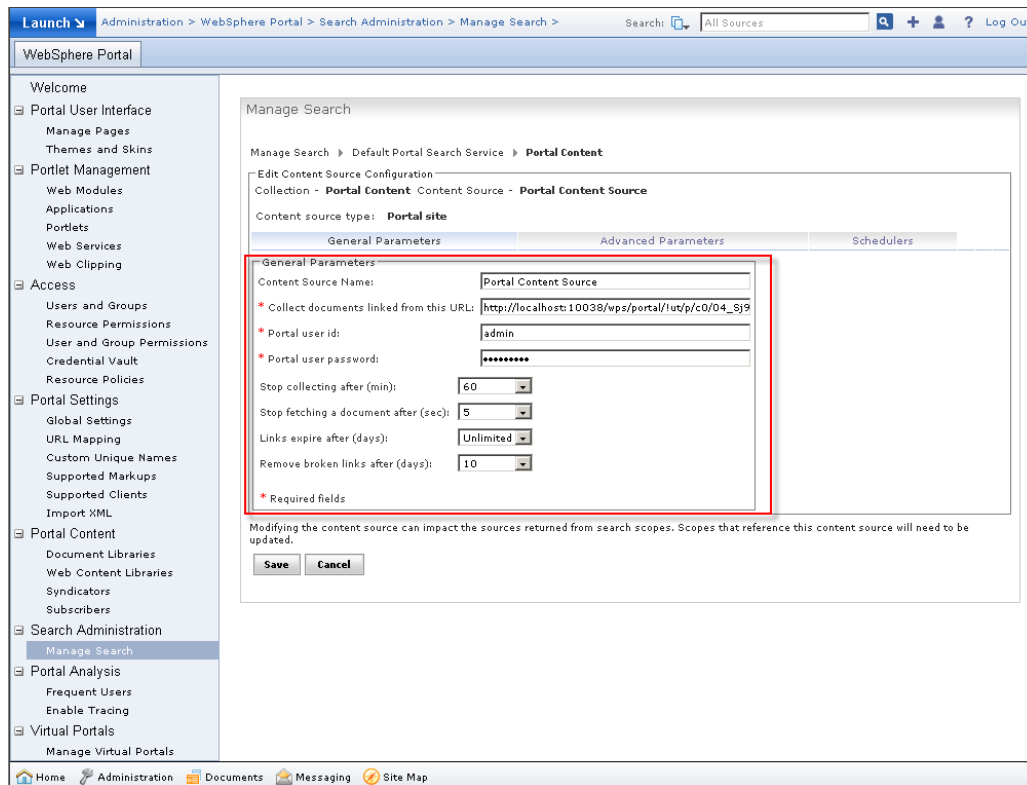
Page 1 of 1

Search collection status information

Search collection name: Portal Content
 Search collection location: C:\IBM\PortalServer\collections\Portal Content
 Collection description:
 Search collection language: English
 Categorizer used: None
 Summarizer used: None
 Remove common words from queries: Yes
 Last update completed: 1/30/09, 19:06
 Next update scheduled: 2/18/09, 01:45
 Number of active documents: 6

Home Administration Documents Messaging Site Map

- g. For Content source type, click **Portal Site**. The site URL is displayed in the Collect documents linked from this URL field.
- h. Copy the URL to the clipboard. For example, highlight the URL and then hold the Ctrl key while you press the Insert key.



Note:

In my case following is the URL which I copy from my portlet Content page

http://localhost:10038/wps/portal/!ut/p/c0/04_sj9CP1I8yMtGPzMnULwx1VAQAW4M9Rw!!/?WPSRedirectURL=http%3A%2F%2Flocalhost%3A10038%2Fwps%2Fmyportal%2F%21ut%2Fp%2Fc0%2F04_SB8K8xLLM9MSSzPy8xBz9CP0os3g_f6NQNxNPQ0MLM1dDAyMzDxMnnzBPA39vQ_2CbEdFAMYKaQ4%21%2F&

Change the host name with your host machine name.

- i. Return to the enterprise search administration console and paste the URL that you copied into the site URL field.
9. Paste the URL that you copied into the URL field.

OmniFind Enterprise Edition

Collections External Sources System Security Search Customizer Log Out Help About

Collections > PortalUnsecureCollection2 : Crawl > Create Crawler > Crawler type : WebSphere Portal

WebSphere Portal Site to Crawl

[Help for this page](#)

Specify the URL of the WebSphere Portal site to be crawled.
The crawler crawls all pages that are linked from the URL that you specify.

* WebSphere Portal site URL:

* User DN (for example, cn=JSmith,o=My Organization):

* Password:

Field to use as the document date:
(This field is used to sort search results by document date.)

Edit document-level security
 Specify an HTTP proxy server
 Specify the SSO authentication type
 Specify the keystores to use for SSL connections
 Specify the language and code page
 Edit metadata

Click Next.

10. **Test the Configuration.** It should show “The crawler successfully connected to the WebSphere Portal server and is able to retrieve documents.”

The screenshot displays the OmniFind Enterprise Edition web interface. At the top, the title "OmniFind Enterprise Edition" is visible. Below the title is a navigation menu with items: Collections, External Sources, System, Security, Search Customizer, Log Out, Help, and About. A breadcrumb trail indicates the current location: Collections > PortalUnsecureCollection2 : Crawl > Create Crawler > Crawler type : WebSphere Portal. A message box with an information icon (i) contains the text: "FFQM03501 The crawler successfully connected to the WebSphere Portal server and is able to retrieve documents." Below this message, the section "Test the WebSphere Portal URL" is shown, including a "Help for this page" link and a paragraph stating: "You can test the crawler's ability to connect to the URL that is configured for this crawler." A button labeled "Test the configuration" is highlighted with a red box. At the bottom of this section are four buttons: "Back", "Next", "Finish", and "Cancel".

Repeat the OmniFind steps for creating crawling for WCM Contents and start Search, Index, Crawler for this collection.

Deploying the Search portlet

The Search portlet, ESSearchPortlet.war, enables you to use the WebSphere® Portal Search Engine to search enterprise search collections.

Before you begin

You must deploy the Search portlet for enterprise search in WebSphere Portal before you can configure the Portal Search Engine to use the portlet.

About this task

After you deploy the Search portlet, you can continue to use the Portal Search Engine to search indexed data in WebSphere Portal. To enable users to search enterprise search collections, a WebSphere Portal administrator edits properties in the Portal Search Engine configuration. You can switch between these two search capabilities and use the most appropriate search solution for your needs.

The ESSearchPortlet.war file is installed in the ES_INSTALL_ROOT/bin directory on the search servers when WebSphere II OmniFind™ Edition is installed. The default installation paths are as follows:

- UNIX® systems: /opt/IBM/es/bin/ESSearchPortlet.war
- Windows® systems: C:\Program Files\IBM\es\bin\ESSearchPortlet.war

Procedure

To deploy the Search portlet in WebSphere Portal:

1. Install the portlet:
 - a. Log in to the WebSphere Portal server with the WebSphere Portal server administrator ID.
 - b. Select **Administration** from the toolbar.
 - c. Select **Portlets** in the navigation area on the left, then select **Install** from the **Portlets** menu.
 - d. Click **Browse**, select the ESSearchPortlet.war file from your system, and click **Next**.
 - e. On the next page, click **Install**. After the portlet is installed, the following message is displayed: APIN0005I: Portlets were successfully installed.
2. Modify the portlet parameters:
 - a. Select **Manage Portlets** in the navigation area on the left, then select **IBM Enterprise Search**.
 - b. After new icons are displayed to the right of the selection box, select **Modify Parameters**.
 - c. In the list of portlet parameters, modify the following parameters:

port

Set this value to the Web Server port number for the WebSphere II OmniFind Edition Search server. The default value is 80.

applicationName

Set this value to the name of a valid search application for enterprise search. (The names of available search applications are listed on the Search Applications page in the enterprise search administration console.) The default value is Default, which is a search application that is always configured on the search servers.

hostname

Set this value to the fully qualified host name of a WebSphere II OmniFind Edition search server.

- d. Click **Save** to save your changes, and then click **Cancel** to exit the Modify Parameters page.
3. Create a portal page for the portlet:
 - a. Select **Portal User Interface** in the navigation area on the left, then select **Manage Pages**.

- b. Select the **My Portal** link.
 - c. Click **New Page**, specify a title for the page, and click **OK**. After the page is created, the following message is displayed: APPR0010I: *page_title* has been created successfully.
 - d. Click **OK**. The page that you created appears in the list of available pages.
4. Add the Search portlet to the page:
 - a. Select the Edit icon (pencil) for the page that you created.
 - b. Click **Add portlets**.
 - c. In the **Search for** text box, type *Enterprise* and then click **Search**.
 - d. Select the check box next to **IBM Enterprise Search** and click **OK**.
 - e. Click **Done**. This step indicates that you successfully installed the Search portlet and added the portlet to a WebSphere Portal page.
5. Access the portlet:
 - a. Select **My Portal** in the navigation bar at the top of the page.
 - b. Select the page that matches the page title that you specified when you added the portlet to the system.

The first time that you access the portlet page, the page might be slow to appear because the system must compile Java™ Server Pages (JSP files) for the portlet.

Info-Center Link:

<http://publib.boulder.ibm.com/infocenter/wsiihelp/v8r3/topic/com.ibm.websphere.ii.esearch.ad.doc/administering/iiysaitdpsrch.htm>

Configuring the WebSphere Portal Search and Browse portlet for enterprise search

WebSphere® Portal provides a portlet that you can use to search and browse native WebSphere Portal collections. You can configure this portlet to search enterprise search collections.

Procedure

To configure the Search and Browse portlet to search enterprise search collections:

1. Stop the WebSphere_Portal server instance.
2. Copy the following files from the WebSphere II OmniFind™ EditionES_INSTALL_ROOT/lib directory to the /WebSphere/PortalServer/shared/appdirectory on the WebSphere Portal server:
3. `esapi.jar`
`siapi.jar`
4. Start the WebSphere_Portal server instance and log in to the WebSphere Portal server with the WebSphere Portal administrator ID.
5. Copy the portlet:
 - a. Click **Administration** in the top right corner, then expand the **Portlet Management** object and select **Portlets**.
 - b. Search for the word `search`.
 - c. For the Search and Browse portlet, click **Copy Portlet**, provide a unique name for the portlet, and click **OK**.
6. Configure the portlet:
 - a. Click the **Configure Portlet** icon next to the portlet name that you specified.
 - b. Click the right arrow to go to the second page of parameters.
 - c. In **New parameter**, enter `ApplicationInfoId`, specify the name of a valid WebSphere II OmniFind Edition search application in the **New value** field, then click **Add** to add the new parameter.

The names of available search applications are listed on the Search Applications page in the enterprise search administration console. The default value is `Default`, which is a search application that is always configured on the search servers.

- d. Delete the following parameters:
 - e. `ApplicationInfoId_EXAMPLE`
 - f. `QueryFactoryImp`
 - g. `BrowseFactoryImp`
 - h. `SearchFactoryImp`
 - i. `IndexName`
 - j. `EJB_Example`
 - k. `IIOP_URL_Example`
 - l. `SOAP_URL_Example`
 - m. `EJB`
 - n. `SOAP_URL`
`IIOP_URL`
 - o. Add the following parameters and specify the values that are shown below. Click **Add** to add each parameter name and value. Parameter names are case sensitive.
 - p. `IMPLEMENT = ES`
 - q. `ApplicationInfoId = search_application_name` (such as `Default`)
 - r. `SearchFactoryImp = com.ibm.es.api.search.RemoteSearchFactory`
 - s. `BrowseFactoryImp = com.ibm.es.api.browse.RemoteBrowseFactory`
 - t. `hostname = search_server_host_name` (such as `omnifind.ibm.com`)
`port = search_server_port_number` (such as `80`)
7. Assign the new copy of the Search and Browse portlet to a portal page. See the WebSphere Portal administration documentation for assistance.
 8. Access the portlet:
 - a. Select **My Portal** in the navigation bar at the top of the portal page.

- b. Select the page that matches the name that you specified when you copied the portlet in step 4.

Info-Center Link:

<http://publib.boulder.ibm.com/infocenter/wsiihelp/v8r3/topic/com.ibm.websphere.ii.esearch.ad.doc/administering/iysaitdpwps.htm>

The screenshot shows the WebSphere Portal Administration console. The breadcrumb navigation is: Administration > WebSphere Portal > Portlet Management > Portlets >. The search bar contains 'All Sources'. The left sidebar shows the navigation menu with 'Portlets' selected under 'Portlet Management'. The main content area is titled 'Manage Portlets' and includes a search bar with 'Title starts with' selected and 'sear' entered. Below the search bar is a table of portlets. The first row is highlighted with a red box.

Title	Unique name	Provided	Remote portlet	Status
Search portlet for enterprise search of OmniFind				
Search portlet for enterprise search				
Search and Browse				
Search Sitemap	wps.p.Sitemap			
Search Center	wps.p.Search Center			

Result:

Launch ▾ Search > Search Center > Search: [Log Out](#)

Welcome Search Center

Search portlet for enterprise search

Search for: [Help for query syntax](#)

[Basic Search](#) [Advanced Search](#) [Category Tree](#) [Preferences](#) [My Profile](#)

File type filter: [All](#) [doc](#) [html](#) [pdf](#) [ppt](#) [txt](#) [xls](#) [xml](#)
 Source type filter: [All](#) [Web Content Management](#) [WebSphere Portal](#)
 Sort by: Sort order:

Expanded query: News
 20 search results returned | 20 documents match all query terms

Top result charts

▼ date

Field name:

2/17/09 16:9:1 (1)	<div style="width: 100%; height: 10px; background: linear-gradient(to right, #0070C0, #00AEEF);"></div>
2/17/09 16:8:4 (1)	<div style="width: 100%; height: 10px; background: linear-gradient(to right, #0070C0, #00AEEF);"></div>
2/17/09 16:7:59 (1)	<div style="width: 100%; height: 10px; background: linear-gradient(to right, #0070C0, #00AEEF);"></div>
2/17/09 16:7:39 (1)	<div style="width: 100%; height: 10px; background: linear-gradient(to right, #0070C0, #00AEEF);"></div>
2/17/09 16:7:7 (1)	<div style="width: 100%; height: 10px; background: linear-gradient(to right, #0070C0, #00AEEF);"></div>

▼ filesize

13255 (2)	<div style="width: 100%; height: 10px; background: linear-gradient(to right, #0070C0, #00AEEF);"></div>
13111 (2)	<div style="width: 100%; height: 10px; background: linear-gradient(to right, #0070C0, #00AEEF);"></div>
94802 (1)	<div style="width: 100%; height: 10px; background: linear-gradient(to right, #0070C0, #00AEEF);"></div>
61393 (1)	<div style="width: 100%; height: 10px; background: linear-gradient(to right, #0070C0, #00AEEF);"></div>
24913 (1)	<div style="width: 100%; height: 10px; background: linear-gradient(to right, #0070C0, #00AEEF);"></div>

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- [Content Palette - Portlet Palette](#) (2/17/09)
- [Site Map - Search Sitemap](#) (2/17/09)
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93.51%	2/17/09		<p>Content Palette - Portlet Palette ...You can view the summary data for your list of stocks and then drill down to details on quotes news ...Acts as a satellite to the MarketWatch Company Tracker portlet application. ...Provides general and business news focused on a single stock or investment at a time. ...Provides top headlines from MarketWatch 's wide array of general business and industry news categories. ...Displays financial performance and fundamental investment data for selected companies investments symbols and indices. ...</p>
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Search within results:

Home Administration Documents Messaging Site Map



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