WebSphere Portal 8
Static Cluster
Additional Node

Version 1

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1. Information

Clusters enable you to scale your IBM® WebSphere® Portal configuration. Clusters also enable enterprise applications to be highly available because requests are automatically routed to the running servers in the event of a failure. There are numerous cluster configuration, such as horizontal, vertical, multiple, and dynamic.

With this document, you will have the ability to understand the steps needed to create an additional node for a static cluster on a multiplatform environment. This document does not cover z/OS or iseries.

If the deployment manager has a database user registry or property extension database (lookaside) additional steps are required. Before continuing, review the WebSphere Portal 8 Infocenter for the additional steps.

This document assumes the WebSphere Portal 8 cluster is created and configured to a supported database such as DB2, Oracle, or Microsoft SQL server.

Helpful Links: To use the link in this document, you must copy and paste them to the browser.

- WebSphere Portal V8.0 Infocenter - WIKI
http://www-10.lotus.com/ldd/portalwiki.nsf/xpViewCategories.xsp?lookupName=IBM%20WebSphere%20Portal%208%20Product%20Documentation

- WebSphere Portal V8.0 Infocenter - HTML
http://infolib.lotus.com/resources/portal/8.0.0/doc/en_us/PT800ACD001/index.html

- WebSphere Portal V8.0 detailed system requirements
http://www-01.ibm.com/support/docview.wss?uid=swg27007791

- WebSphere Portal Infocenter: Preparing additional cluster members

Linux
http://www-10.lotus.com/ldd/portalwiki.nsf/xpDocViewer.xsp?lookupName=IBM+WebSphere+Portal+8+Product+Documentation#action=openDocument&res_title=Preparing_additional_cluster_members_on_Linux_wp8&content=pdcontent

Windows
http://www-10.lotus.com/ldd/portalwiki.nsf/xpDocViewer.xsp?lookupName=IBM+WebSphere+Portal+8+Product+Documentation#action=openDocument&res_title=Preparing_additional_cluster_members_on_Windows_wp8&content=pdcontent

AIX

http://www-10.lotus.com/ldd/portalwiki.nsf/xpDocViewer.xsp?lookupName=IBM+WebSphere+Portal+8+Product+Documentation#action=openDocument&res_title=Preparing_additional_cluster_members_on_AIX_wp8&content=pdcontent

Solaris

http://www-10.lotus.com/ldd/portalwiki.nsf/xpDocViewer.xsp?lookupName=IBM+WebSphere+Portal+8+Product+Documentation#action=openDocument&res_title=Preparing_additional_cluster_members_on_Solaris_wp8&content=pdcontent

The document was tested on Linux. All other platform information is here for help purposes only.

This document is not written or supported by IBM Support.

Name	Date	Version	Description
Loc Dang	03/24/13	v1	Static Cluster : Additional Node

2. WebSphere Portal Packages

Depending on the package that you have purchased it will determine which type of media files you will need for WebSphere Portal and Web Content Manager. Some of the package may share the same Portal and Web Content management media files but different overall total software. Review the media section to determine what media files are required for the WebSphere Portal installation

- IBM Web Content Manager Standard Edition V8.0 Multiplatform (CRIB2ML)
- IBM Web Content Manager V8.0 Multiplatform Multilingual (CRIA8ML)
- IBM Content Accelerator, Collaboration Accelerator and WebSphere Portal Server V8.0 Multiplatform Multilingual (CRIE1ML)
- IBM Content Accelerator and WebSphere Portal Server V8.0 Multiplatform Multilingual (CRID3ML)
- IBM Collaboration Accelerator and WebSphere Portal Server V8.0 Multiplatform Multilingual (CRIF4ML)
- IBM WebSphere Portal Server V8.0 Multiplatform Multilingual eAssembly (CRI6AML)
- IBM WebSphere Portal Enable V8.0 Multiplatform Multilingual (CRI9GML)
- IBM WebSphere Portal Extend V8.0 Multiplatform Multilingual (CRI9QML)

3. Media

3.1 WebSphere Portal Server

The following media will be part of the following packages:
- IBM WebSphere Portal Server V8.0 Multiplatform Multilingual eAssembly (CRI6AML)
- IBM Collaboration Accelerator and WebSphere Portal Server V8.0 Multiplatform Multilingual (CRIF4ML)

Download	Description
CI7MYML	IBM WebSphere Portal Server Setup V8 Multiplatform Multilingual
CI7N3ML	IBM WebSphere Portal and Web Content Manager Install V8.0 (1 of 5) Multiplatform Multilingual
CI7N4ML	IBM WebSphere Portal and Web Content Manager Install V8.0 (2 of 5) Multiplatform Multilingual
CI7N5ML	IBM WebSphere Portal and Web Content Manager Install V8.0 (3 of 5) Multiplatform Multilingual
CI7N6ML	IBM WebSphere Portal and Web Content Manager Install V8.0 (4 of 5)

	Multiplatform Multilingual
CI7N7ML	IBM WebSphere Portal and Web Content Manager Install V8.0 (5 of 5) Multiplatform Multilingual
CI7N8ML	IBM WebSphere Application Server Network Deployment V8.0.0.3 (1 of 3) Multiplaform Multilingual
CI7N9ML	IBM WebSphere Application Server Network Deployment V8.0.0.3 (2 of 3) Multiplaform Multilingual
CI7NAML	IBM WebSphere Application Server Network Deployment V8.0.0.3 (3 of 3) Multiplaform Multilingual

Extract all media to one directory

MEDIA = _____

```
UNIX            MEDIA = /opt/tmp/Portal8
Windows         MEDIA = E:/Portal8
```

Example:
```
      <MEDIA>/Setup
      <MEDIA>/Portal
      <MEDIA>/WAS
```

3.2   WebSphere Portal Enable

The following media will be part of the following packages:
- IBM WebSphere Portal Enable V8.0 Multiplatform Multilingual (CRI9GML)

Download	Description
CI7V6ML	IBM WebSphere Portal Enable Setup V8(1 of 2) Multiplatform Multilingual
CI7V7ML	IBM WebSphere Portal Enable Setup V8(2 of 2) Multiplatform Multilingual
CI7N3ML	IBM WebSphere Portal and Web Content Manager Install V8.0 (1 of 5) Multiplatform Multilingual
CI7N4ML	IBM WebSphere Portal and Web Content Manager Install V8.0 (2 of 5) Multiplatform Multilingual
CI7N5ML	IBM WebSphere Portal and Web Content Manager Install V8.0 (3 of 5) Multiplatform Multilingual
CI7N6ML	IBM WebSphere Portal and Web Content Manager Install V8.0 (4 of 5) Multiplatform Multilingual
CI7N7ML	IBM WebSphere Portal and Web Content Manager Install V8.0 (5 of 5) Multiplatform Multilingual
CI7N8ML	IBM WebSphere Application Server Network Deployment V8.0.0.3 (1 of 3) Multiplaform Multilingual
CI7N9ML	IBM WebSphere Application Server Network Deployment V8.0.0.3 (2 of

	3) Multiplaform Multilingual
CI7NAML	IBM WebSphere Application Server Network Deployment V8.0.0.3 (3 of 3) Multiplaform Multilingual

Extract all media to one directory

MEDIA = _____

```
UNIX          MEDIA = /opt/tmp/Portal8
Windows       MEDIA = E:/Portal8
```

Example:
```
<MEDIA>/Enable
<MEDIA>/Setup
<MEDIA>/Portal
<MEDIA>/WAS
```

3.3   WebSphere Portal Extend

The following media will be part of the following packages:
- IBM WebSphere Portal Extend V8.0 Multiplatform Multilingual (CRI9QML)

Download	Description
CI7V8ML	IBM WebSphere Portal Extend Setup V8(1 of 2) Multiplatform Multilingual
CI7V9ML	IBM WebSphere Portal Extend Setup V8(2 of 2) Multiplatform Multilingual
CI7N3ML	IBM WebSphere Portal and Web Content Manager Install V8.0 (1 of 5) Multiplatform Multilingual
CI7N4ML	IBM WebSphere Portal and Web Content Manager Install V8.0 (2 of 5) Multiplatform Multilingual
CI7N5ML	IBM WebSphere Portal and Web Content Manager Install V8.0 (3 of 5) Multiplatform Multilingual
CI7N6ML	IBM WebSphere Portal and Web Content Manager Install V8.0 (4 of 5) Multiplatform Multilingual
CI7N7ML	IBM WebSphere Portal and Web Content Manager Install V8.0 (5 of 5) Multiplatform Multilingual
CI7N8ML	IBM WebSphere Application Server Network Deployment V8.0.0.3 (1 of 3) Multiplaform Multilingual
CI7N9ML	IBM WebSphere Application Server Network Deployment V8.0.0.3 (2 of 3) Multiplaform Multilingual
CI7NAML	IBM WebSphere Application Server Network Deployment V8.0.0.3 (3 of 3) Multiplaform Multilingual

Extract all media to one directory

MEDIA = _____

```
UNIX        MEDIA = /opt/tmp/Portal8
Windows     MEDIA = E:/Portal8
```

Example:
```
<MEDIA>/Extend
<MEDIA>/Setup
<MEDIA>/Portal
<MEDIA>/WAS
```

3.4   Web Content Management

The following media will be part of the following packages:
- IBM Web Content Manager V8.0 Multiplatform Multilingual (CRIA8ML)
- IBM Content Accelerator and WebSphere Portal Server V8.0 Multiplatform Multilingual (CRID3ML)
- IBM Content Accelerator, Collaboration Accelerator and WebSphere Portal Server V8.0 Multiplatform Multilingual (CRIE1ML)

Download	Description
CI7VIML	IBM Web Content Manager Setup V8.0 (1 of 2) Multiplatform Multilingual
CI7VJML	IBM Web Content Manager Setup V8.0 (2 of 2) Multiplatform Multilingual
CI7N3ML	IBM WebSphere Portal and Web Content Manager Install V8.0 (1 of 5) Multiplatform Multilingual
CI7N4ML	IBM WebSphere Portal and Web Content Manager Install V8.0 (2 of 5) Multiplatform Multilingual
CI7N5ML	IBM WebSphere Portal and Web Content Manager Install V8.0 (3 of 5) Multiplatform Multilingual
CI7N6ML	IBM WebSphere Portal and Web Content Manager Install V8.0 (4 of 5) Multiplatform Multilingual
CI7N7ML	IBM WebSphere Portal and Web Content Manager Install V8.0 (5 of 5) Multiplatform Multilingual
CI7N8ML	IBM WebSphere Application Server Network Deployment V8.0.0.3 (1 of 3) Multiplaform Multilingual
CI7N9ML	IBM WebSphere Application Server Network Deployment V8.0.0.3 (2 of 3) Multiplaform Multilingual
CI7NAML	IBM WebSphere Application Server Network Deployment V8.0.0.3 (3 of 3) Multiplaform Multilingual

Extract all media to one directory

MEDIA = _____

```
UNIX            MEDIA = /opt/tmp/Portal8
Windows         MEDIA = E:/Portal8
```

Example:
```
  <MEDIA>/WCM
  <MEDIA>/Setup
  <MEDIA>/Portal
  <MEDIA>/WAS
```

3.5   Web Content Management Standard Edition

The following media will be part of the following packages:
- IBM Web Content Manager Standard Edition V8.0 Multiplatform (CRIB2ML)

Download	Description
CI7VKML	IBM Web Content Manager Standard Edition Setup V8.0 (1 of 2) Multiplatform Multilingual
CI7VLML	IBM Web Content Manager Standard Edition Setup V8.0 (2 of 2) Multiplatform Multilingual
CI7N3ML	IBM WebSphere Portal and Web Content Manager Install V8.0 (1 of 5) Multiplatform Multilingual
CI7N4ML	IBM WebSphere Portal and Web Content Manager Install V8.0 (2 of 5) Multiplatform Multilingual
CI7N5ML	IBM WebSphere Portal and Web Content Manager Install V8.0 (3 of 5) Multiplatform Multilingual
CI7N6ML	IBM WebSphere Portal and Web Content Manager Install V8.0 (4 of 5) Multiplatform Multilingual
CI7N7ML	IBM WebSphere Portal and Web Content Manager Install V8.0 (5 of 5) Multiplatform Multilingual
CI7N8ML	IBM WebSphere Application Server Network Deployment V8.0.0.3 (1 of 3) Multiplaform Multilingual
CI7N9ML	IBM WebSphere Application Server Network Deployment V8.0.0.3 (2 of 3) Multiplaform Multilingual
CI7NAML	IBM WebSphere Application Server Network Deployment V8.0.0.3 (3 of 3) Multiplaform Multilingual

Extract all media to one directory

MEDIA = _____

```
UNIX            MEDIA = /opt/tmp/Portal8
Windows         MEDIA = E:/Portal8
```

Example:
```
  <MEDIA>/WCM_SE
  <MEDIA>/Setup
```

> *<MEDIA>*/Portal
> *<MEDIA>*/WAS

4. Pre-requisite

4.1   Common Requirements

Before installing WebSphere Portal Server, verify all hardware and software requirements are met.

http://www-304.ibm.com/support/docview.wss?uid=swg27007791

Disk Space :
- Minimum 3 GB free disk space for installation for WebSphere Portal
- Minimum 2 GB free disk space for installation for WebSphere Application Server
- Minimum 3 GB free disk space for installation of IBM Installation Manager and the Installation Manager shared directory
- Minimum 8 GB total disk space recommended for installation

Physical Memory :
- 4GB of RAM and a remote database under minimal load
- 6GB of RAM is an optimal starting point for Production

Processor :
- AIX : IBM POWER family of processors
- LINUX : x86-32 and x86-64
- Windows : x86-32 and x86-64
- Solaris : x86-64 (64 bit JVM support only) and Sparc (32 or 64 bit JVM support)

4.2   Windows

- WebSphere Portal Server
  http://publib.boulder.ibm.com/infocenter/prodguid/v1r0/clarity-reports/report/html/softwareReqsForProduct?deliverableId=1335812433418&osPlatform=Windows

- WebSphere Portal Enable
  http://publib.boulder.ibm.com/infocenter/prodguid/v1r0/clarity-reports/report/html/softwareReqsForProduct?deliverableId=1335812746263&osPlatform=Windows

- WebSphere Portal Extend
  http://publib.boulder.ibm.com/infocenter/prodguid/v1r0/clarity-reports/report/html/softwareReqsForProduct?deliverableId=1294417330771&osPlatform=Windows

4.3 Linux

- WebSphere Portal Server
  http://publib.boulder.ibm.com/infocenter/prodguid/v1r0/clarity-reports/report/html/softwareReqsForProduct?deliverableId=1335812433418&osPlatform=Linux

- WebSphere Portal Enable
  http://publib.boulder.ibm.com/infocenter/prodguid/v1r0/clarity-reports/report/html/softwareReqsForProduct?deliverableId=1335812746263&osPlatform=Linux

- WebSphere Portal Extend
  http://publib.boulder.ibm.com/infocenter/prodguid/v1r0/clarity-reports/report/html/softwareReqsForProduct?deliverableId=1294417330771&osPlatform=Linux

4.4 AIX

- WebSphere Portal Server
  http://publib.boulder.ibm.com/infocenter/prodguid/v1r0/clarity-reports/report/html/softwareReqsForProduct?deliverableId=1335812433418&osPlatform=AIX

- WebSphere Portal Enable
  http://publib.boulder.ibm.com/infocenter/prodguid/v1r0/clarity-reports/report/html/softwareReqsForProduct?deliverableId=1335812746263&osPlatform=AIX

- WebSphere Portal Extend
  http://publib.boulder.ibm.com/infocenter/prodguid/v1r0/clarity-reports/report/html/softwareReqsForProduct?deliverableId=1294417330771&osPlatform=AIX

4.5 Solaris

- WebSphere Portal Server

http://publib.boulder.ibm.com/infocenter/prodguid/v1r0/clarity-reports/report/html/softwareReqsForProduct?deliverableId=1335812433418&osPlatform=Solaris

- WebSphere Portal Enable
http://publib.boulder.ibm.com/infocenter/prodguid/v1r0/clarity-reports/report/html/softwareReqsForProduct?deliverableId=1335812746263&osPlatform=Solaris

- WebSphere Portal Extend
http://publib.boulder.ibm.com/infocenter/prodguid/v1r0/clarity-reports/report/html/softwareReqsForProduct?deliverableId=1294417330771&osPlatform=Solaris
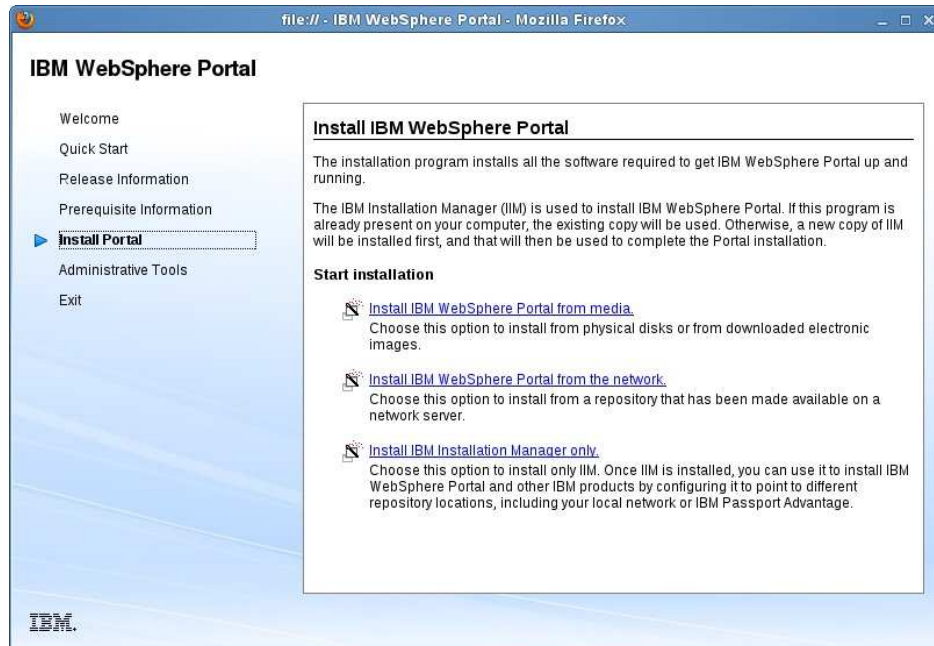
5. Installation

5.1 Installation Manager

1. Change directory to the setup directory

   Example:
 | | |
   |---|---|
   | UNIX: | /opt/tmp/Portal8/Setup |
   | Windows: | E:\Portal8\Setup |

2. Run the setup command that matches your OS type

 | | | |
   |---|---|---|
   | Windows64 | = | setup64.exe |
   | Windows | = | setup.exe |
   | Linux/Unix | = | ./setup.sh |

3. Click Install Portal

4. Click on one of the three options. With this document, click on **Install IBM WebSphere Portal from Media**. If IBM Installation Manager is not installed, it will go directly to the Installation Manager install and you can continue with the document. If Installation Manager is already installed, it will take you to the Welcome page of the Installation Manager and you can skip this section and go to the Installation of WebSphere Portal.

- **Install IBM WebSphere Portal from Media** : Choose this option to install from physical disks or from downloaded electronic images
- **Install IBM WebSphere Portal from the network** : Choose this option to install from a repository that has been made available on a network server
- **Install IBM Installation Manager only** : Choose this option to install only IIM. Once IM is installed, you can use it to install IBM WebSphere Portal and other IBM products by configuring it to point to different repository locations, including your local network or IBM passport advantage.
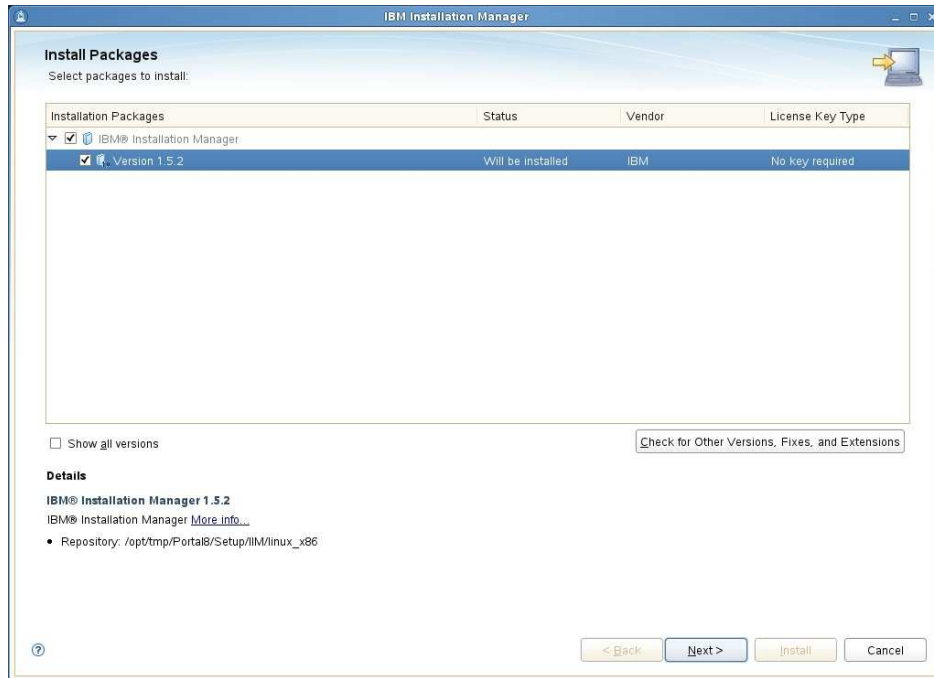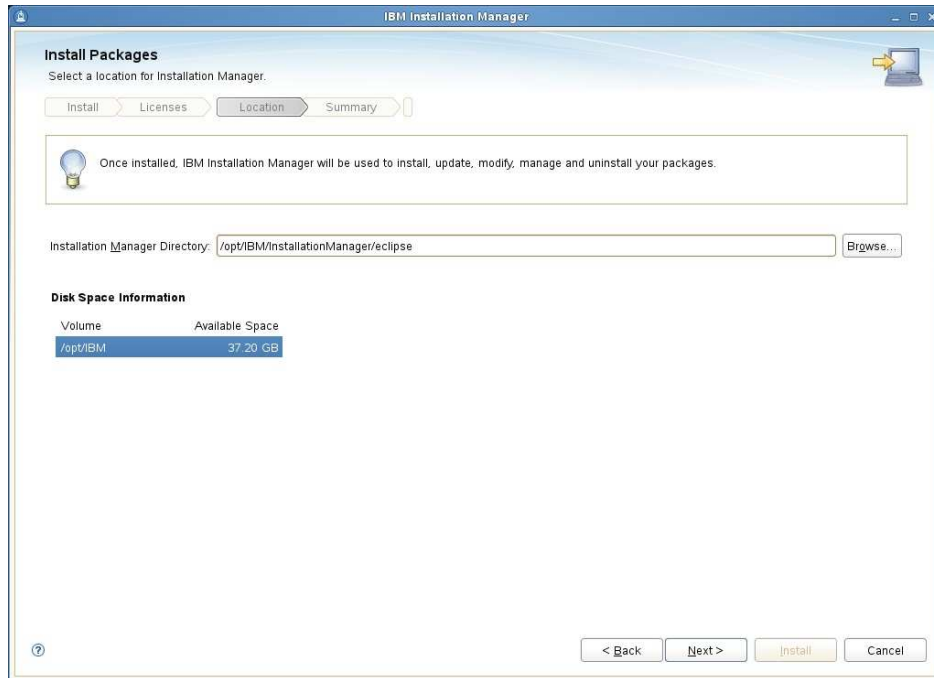
5. Click Next, and you will start the process of installing IBM Installation Manager
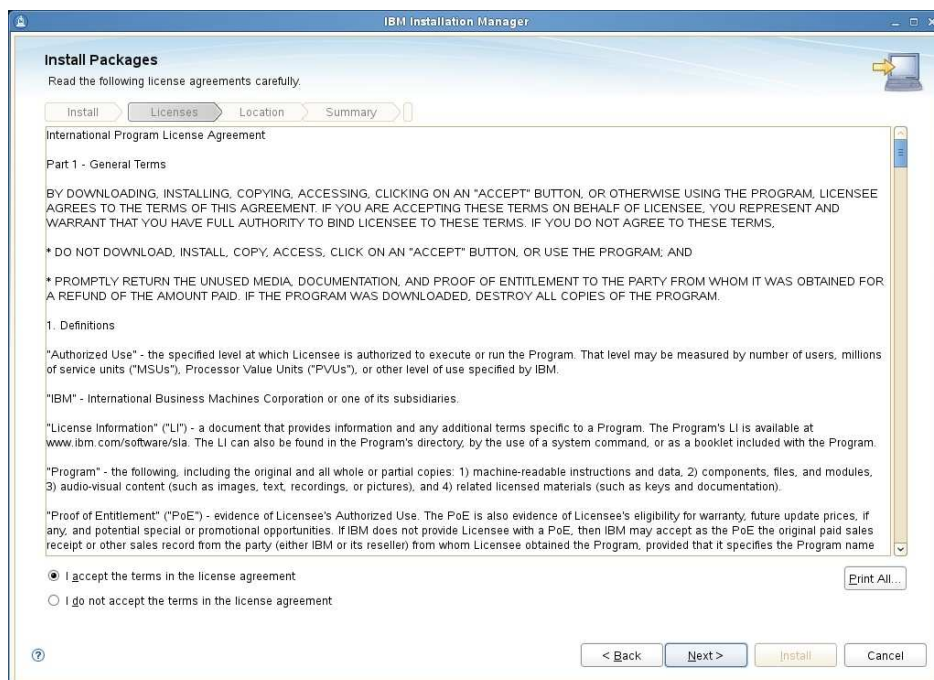
6. Select "I accept the terms in the license agreement"

7. Click Next

8. Update/Validate the Installation Manager Directory

   Installation Manager Directory: _____

   Example:

```
UNIX     Installation Manager Directory:
                                  /opt/IBM/InstallationManager/eclipse
Windows  Installation Manager Directory:
                                  C:\IBM\InstallationManager\eclipse
```
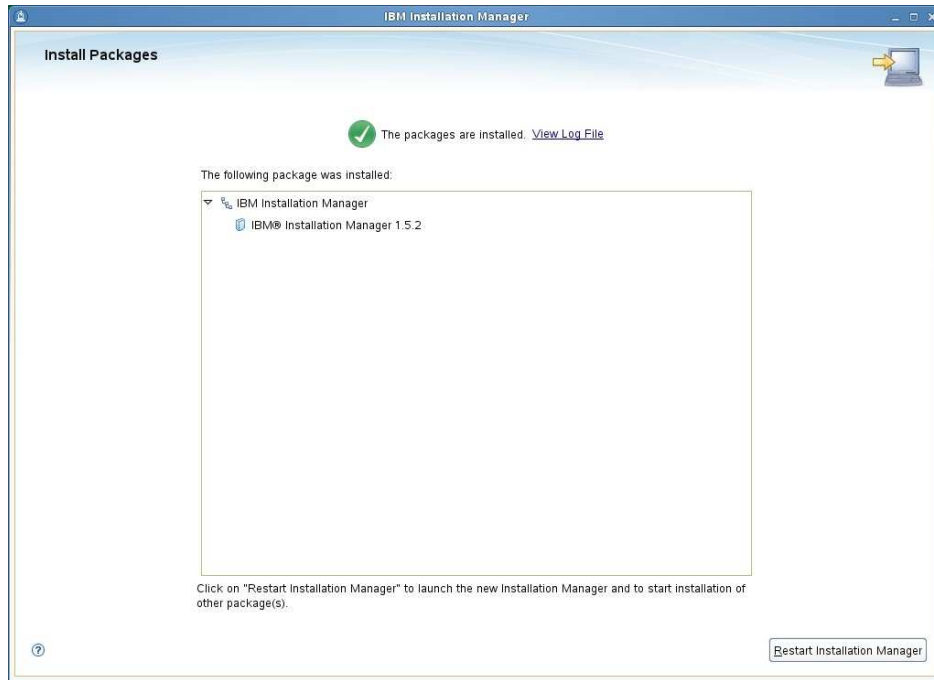
9. Click Next

10. Review the summary information. If everything looks correct, click Install.
    Otherwise click Back and fix the correction.

11. After the successful installation of the IBM Installation Manager, click Restart Installation Manager

5.2 Install WebSphere Portal - Binary

1. Start the WebSphere Portal Installation using one of the following methods

   a. Click Restart Installation Manager after a successful install of the Installation Manager
   b. Start the Installation Manager if it was already installed earlier
   c. Click "Install IBM WebSphere Portal from media" after you have started the *<MEDIA>*/Setup/Setup.sh
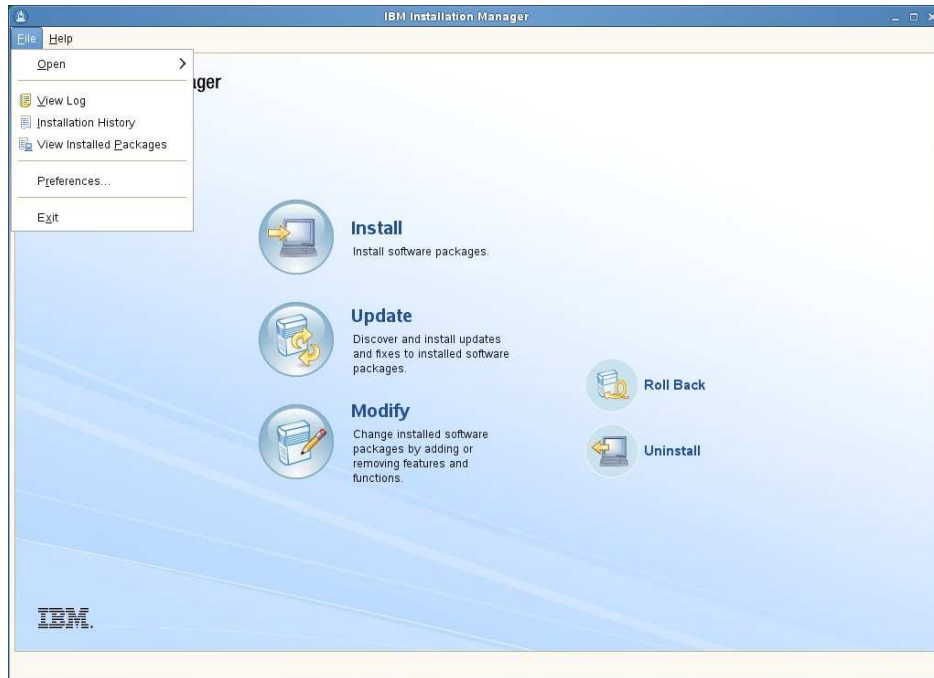
2. Click File > Preferences…
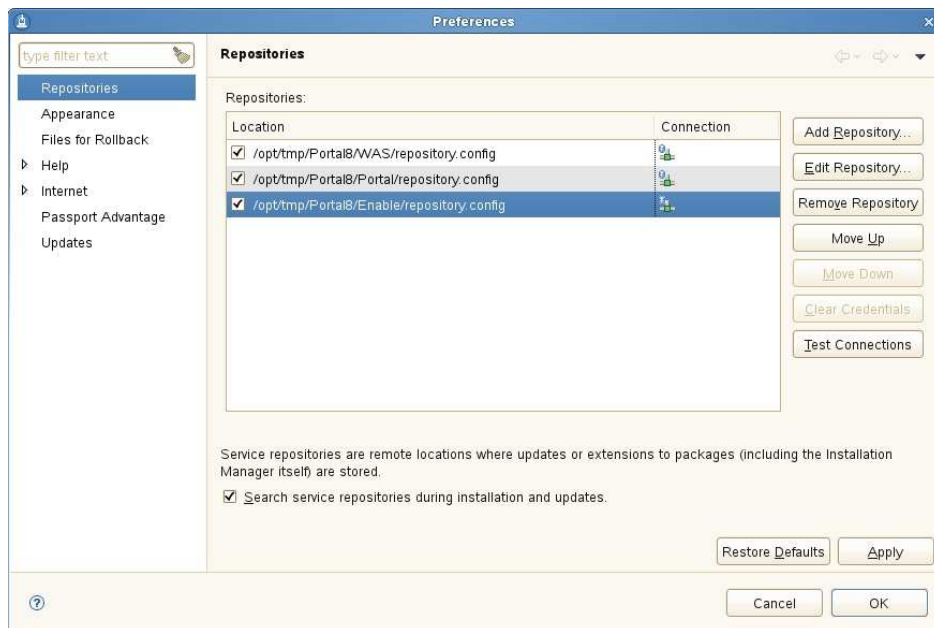
3. Click on the Repository Location that is already present

4. Click Remove Repository to remove the current repository

5. Click Add Repository…

6. Enter/Browse to the location of the WAS repository.config

```
<MEDIA>/WAS/repository.config
```

NOTE: If you forget to add the WAS respository.config, during the installation the installer will ask for disk1

7. Click OK

8. Click OK to add the repository

9. Click Add Repository

10. Enter/Browse to the location of the Portal repository.config

    <MEDIA>/Portal/repository.config

NOTE: If you forget to add the Portal respository.config, during the installation the installer will ask for disk1

11. Click OK

12. Click OK to add the repository

13. Click Add Repository

14. Enter/Browse to the location of the Portal/WCM Version's repository.config

Entitlement	Example Directory
WebSphere Portal Enable	*<MEDIA>*/Enable/repository.config
WebSphere Portal Extend	*<MEDIA>*/Extend/repository.config
Web Content Management	*<MEDIA>*/WCM/repository.config
Web Content Management SE	*<MEDIA>*/WCM_SE/repository.config

NOTE:
- WebSphere Portal Server does not have a repository.config file. This step can be skipped for a WebSphere Portal Server install.
- If you forget to add the Portal entitlement repository.config, during the installation the installer will ask for disk1

15. Click OK

16. Click OK to add the repository

17. Click OK to close the Preference screen
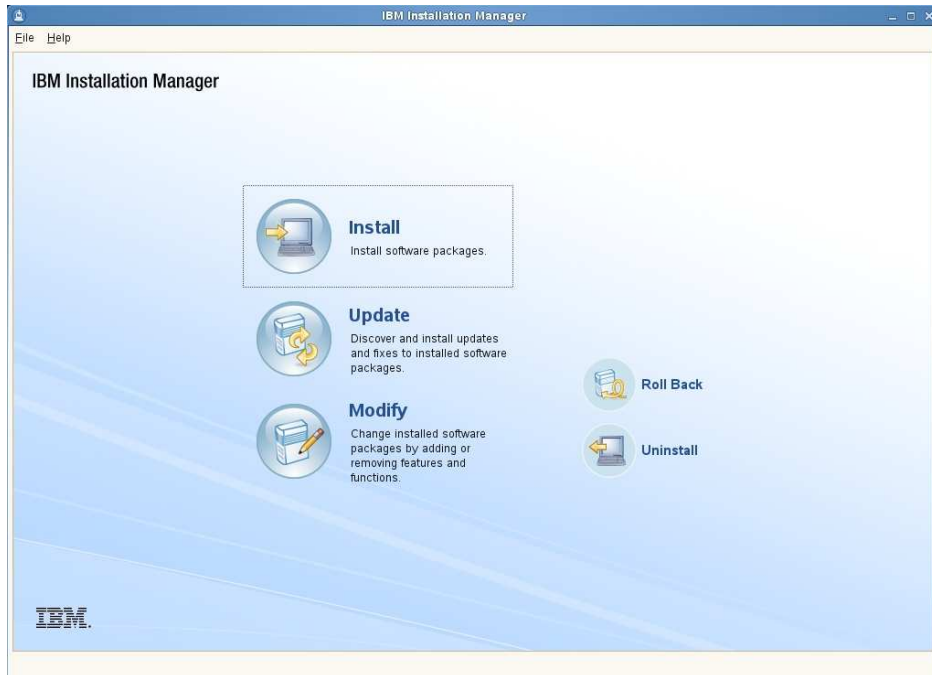
18. Click Install
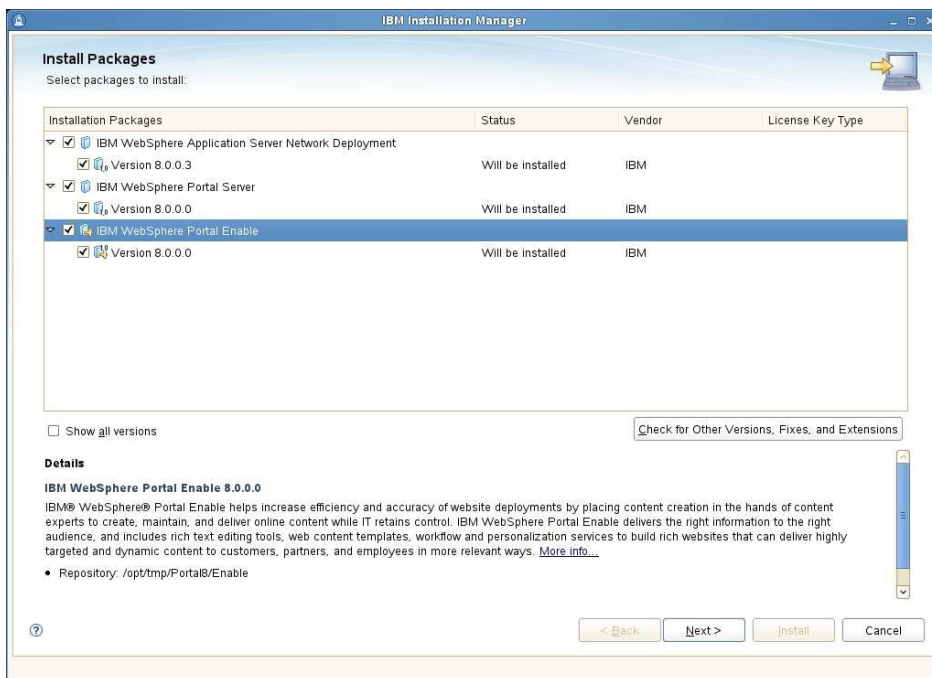
19. Check the Checkboxes by all of the software

20. Click Next
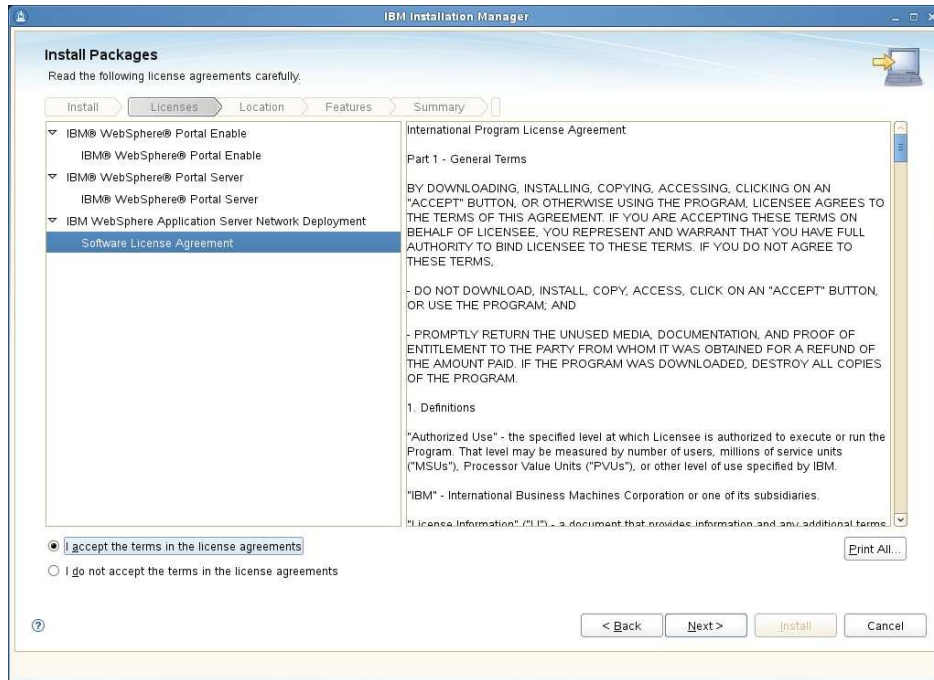
21. Select "I accept the terms in the license agreements"

22. Click Next to accept the license agreements for all software
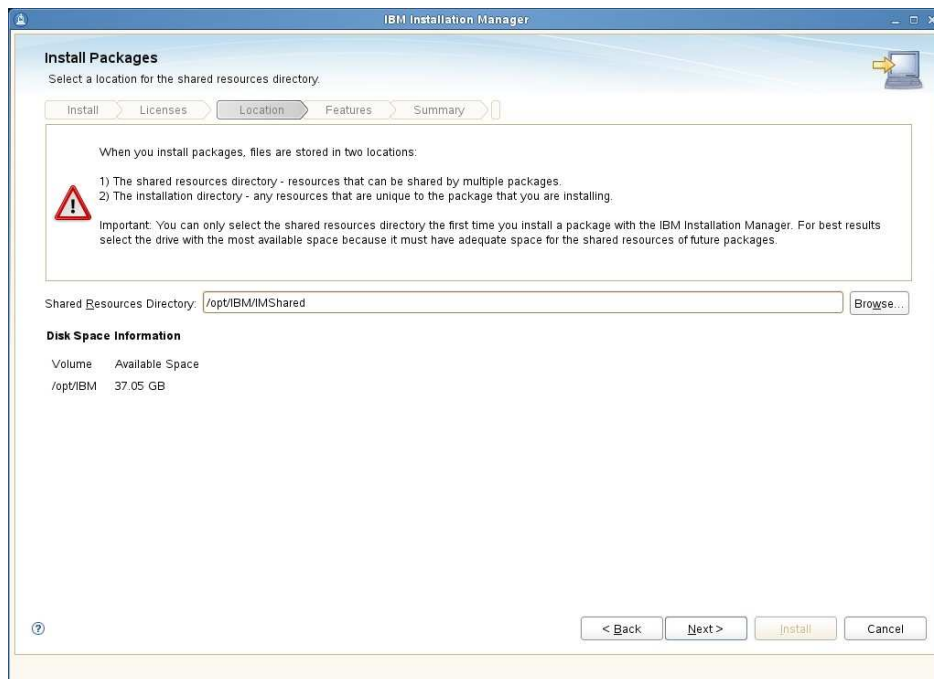
23. Update/Validate the Shared Resources Directory. The directory must be empty

Shared Resources Directory: _____

Example:
```
UNIX            Shared Resources Directory: /opt/IBM/IMShared
Windows         Shared Resources Directory: C:\IBM\IMShared
```

24. Click Next
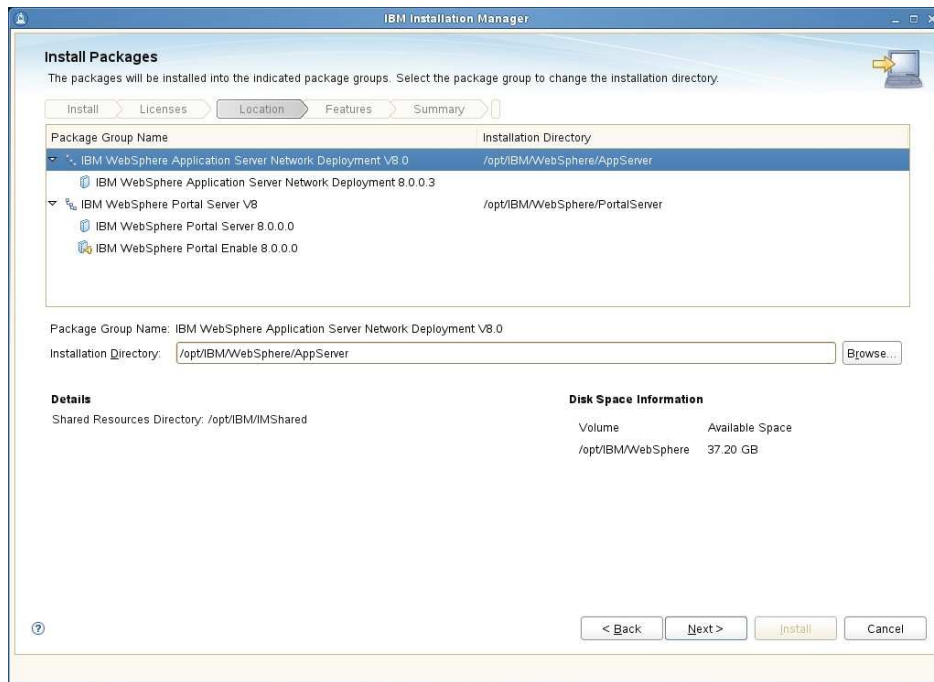
25. Select Package Group Name "IBM WebSphere Application Server Network Deployment V8.0"

26. Update/Validate the Installation Directory for WebSphere Application Server

    WAS_HOME : _____

Example:
```
UNIX:           WAS_HOME: /opt/IBM/WebSphere/AppServer
Windows:        WAS_HOME: C:\IBM\WebSphere\AppServer
```
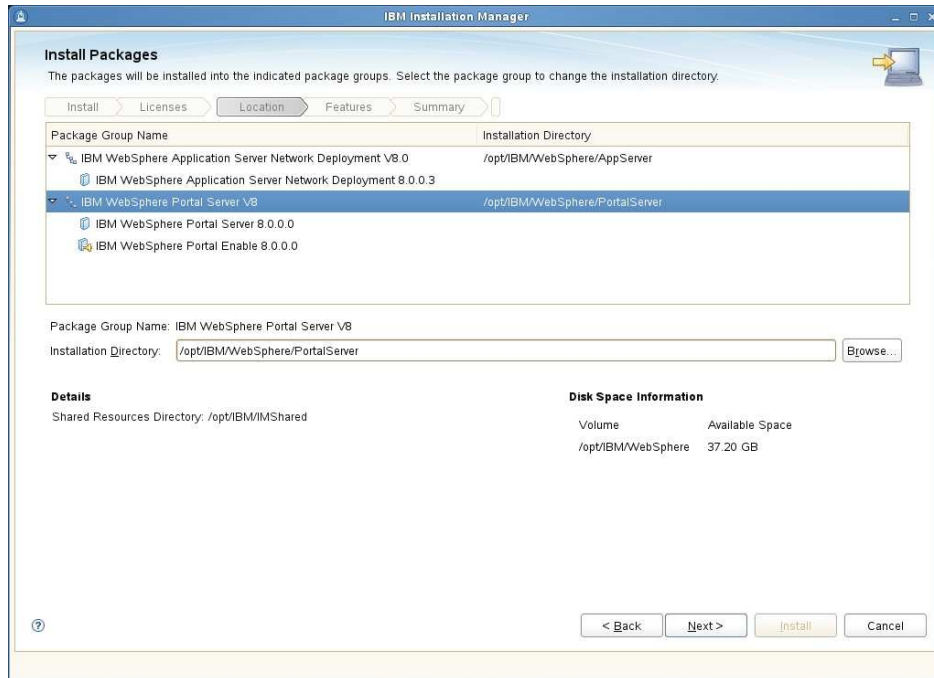
27. Select the Package Group Name "IBM WebSphere Portal Server V8"

28. Update/Validate the Installation Directory for WebSphere Portal Server

WP_HOME : _____

Example:

```
UNIX            WP_HOME: /opt/IBM/WebSphere/PortalServer
Windows         WP_HOME: C:\IBM\WebSphere\PortalServer
```

29. Click Next
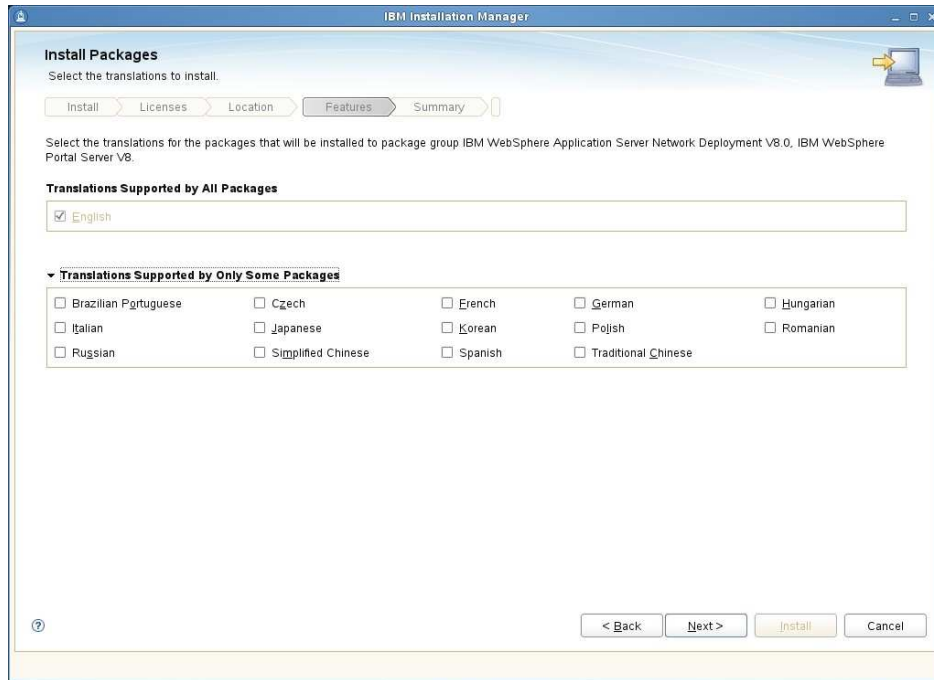
30. If you want to add some Translation Support by Only Some Packages, click on it and select the language you would like to add.

31. Click Next
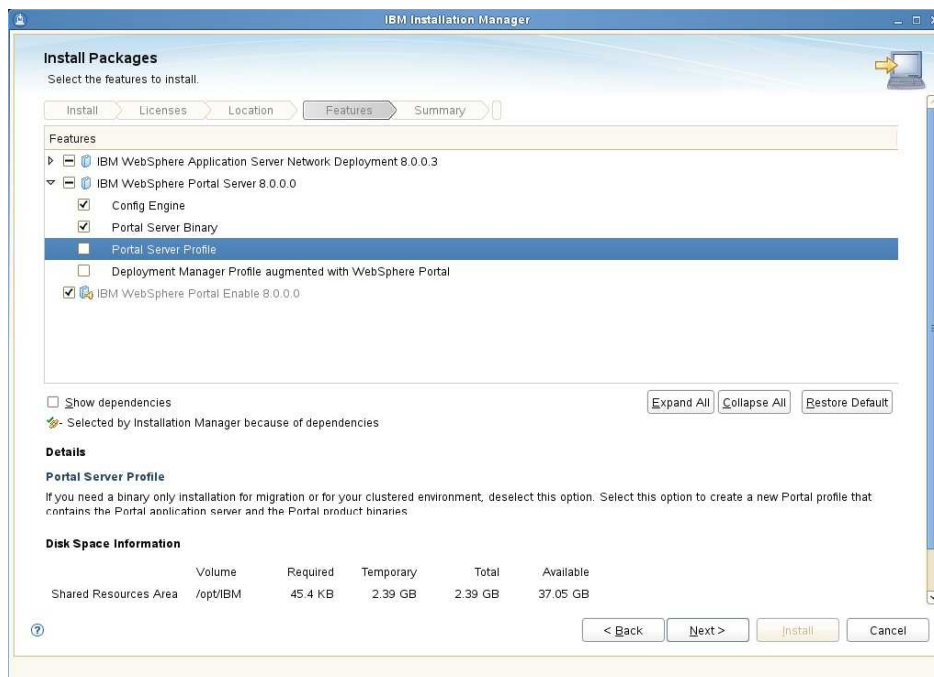
32. Expand IBM WebSphere Portal Server 8.0.0.0

33. Uncheck Portal Server Profile

34. Click Next
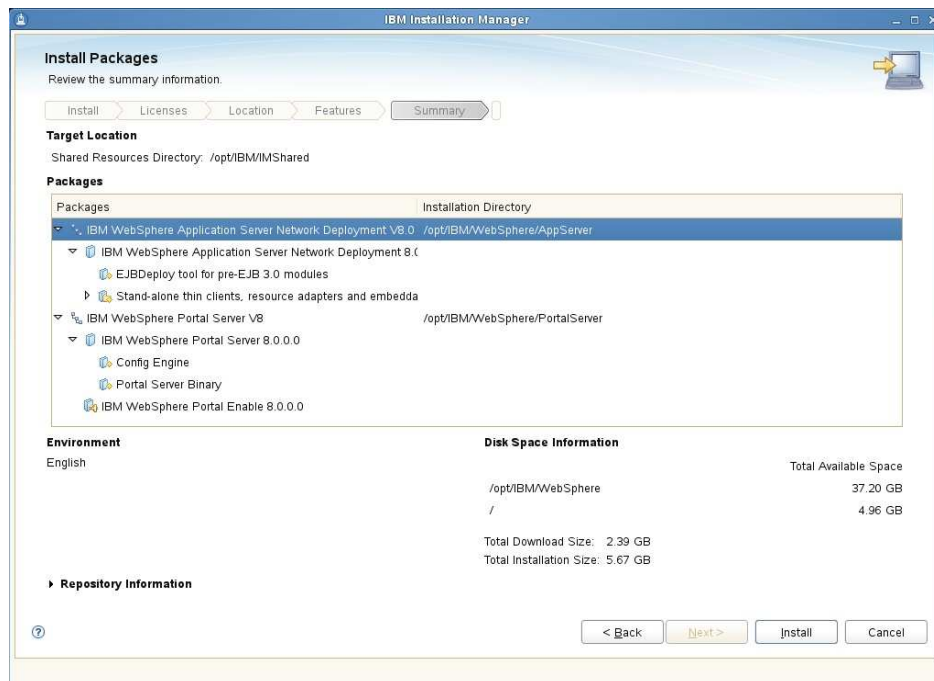
35. Review the summary information. If everything is correct, click Install, otherwise click Back.
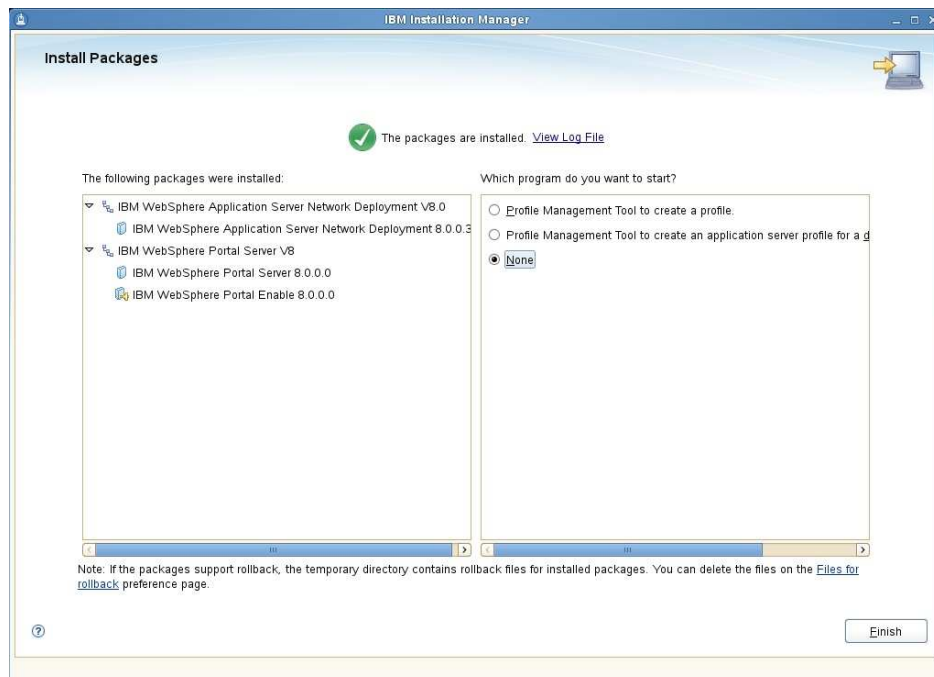
36. Under "Which program do you want to start?", Select None

37. Click Finish

6. Create WebSphere Portal Profile

These steps are only required if you installed WebSphere Portal as a binary install. These steps can be skipped if you installed the WebSphere Portal environment that included the wp_profile.

6.1 Profile Template

1. Copy the profileTemplates.zip from the primary node to the additional node

```
From:    <WP_HOME>/profileTemplates/profileTemplates.zip
To:      <WP_HOME>/profileTemplates/profileTemplates.zip
```

Example UNIX:
```
From:    /opt/IBM/WebSphere/PortalServer/profileTemplates/
                                          profileTemplates.zip
To:      /opt/IBM/WebSphere/PortalServer/profileTemplates/
                                          profileTemplates.zip
```

Example Windows:
```
From:    C:\IBM\WebSphere\PortalServer\profileTemplates\
                                          profileTemplates.zip
To:      C:\IBM\WebSphere\PortalServer\profileTemplates\
                                          profileTemplates.zip
```

2. Unzip the profileTemplates.zip in the same directory you copied it to

Example:
```
<WP_HOME>/profileTemplates/default.portal
<WP_HOME>/profileTemplates/default.portal.augment
<WP_HOME>/profileTemplates/installPortalTemplates.ant
<WP_HOME>/profileTemplates/installPortalTemplates.bat
<WP_HOME>/profileTemplates/installPortalTemplates.sh
<WP_HOME>/profileTemplates/managed.portal
<WP_HOME>/profileTemplates/managed.portal.augment
<WP_HOME>/profileTemplates/management.portal.augment
```

NOTE: Override all directories and files.

3. On unix, run the following command to change the permissions of the files and directories located in the profileTemplates directory because some files are set to read-only after the copy operation.
```
    chmod -R 755 <WP_HOME>/profileTemplates
```

Example:
```
        chmod -R 755 /opt/IBM/WebSphere/PortalServer/profileTemplates
```

4. On the additional node, run the following command to install the copied profile templates

```
<WP_HOME>/profileTemplates/installPortalTemplates.(sh/bat) <WAS_HOME>
```

Example:
```
UNIX    # /opt/IBM/WebSphere/PortalServer/profileTemplates/
                installPortalTemplates.sh /opt/IBM/WebSphere/AppServer
Windows # C:\IBM\WebSphere\PortalServer\profileTemplates\
                installPortalTemplates.bat C:\IBM\WebSphere\AppServer
```

```
     [echo]  fixing up file /opt/IBM/WebSphere/PortalServer/profileTemplates/man
aged.portal.augment/templateMetadata.xml
     [echo]  fixing up file /opt/IBM/WebSphere/PortalServer/profileTemplates/man
agement.portal.augment/templateMetadata.xml
     [echo]  fixing up file /opt/IBM/WebSphere/PortalServer/profileTemplates/man
aged.portal/templateMetadata.xml

BUILD SUCCESSFUL
Total time: 4 seconds
wps8b:/opt/IBM/WebSphere/PortalServer/profileTemplates #
```

5. Verify the script returns a BUILD SUCCESSFUL message

6.2 Create Profile

1. Open an xterm or command prompt on the additional node server

2. Change directory to the WebSphere Application Server bin directory
```
    <WAS_HOME>/bin
```

   Example:
```
    UNIX    # /opt/IBM/WebSphere/AppServer/bin
    Windows # C:\IBM\WebSphere\AppServer\bin
```

3. Run the following command to create the WebSphere Portal Server profile.

- The node name must not match any node name on the Deployment Manager.
- The cell name must not match the cell name of the Deployment Manager

```
manageprofiles.(sh/bat) -create
  -templatePath <WP_HOME>/profileTemplates/managed.portal
  -profileName PROFILENAME
  -profilePath PROFILE_PATH
  -cellName CELLNAME
  -nodeName NODENAME
  -hostName HOSTNAME
```

Example UNIX:
```
./manageprofiles.sh -create
  -templatePath /opt/IBM/WebSphere/PortalServer/profileTemplates/
                                                    managed.portal
  -profileName wp_profile
  -profilePath /opt/IBM/WebSphere/wp_profile
  -cellName Cell2
  -nodeName Node2
  -hostName wps8b.ibm.com
```

Example Windows:
```
manageprofiles.bat -create
  -templatePath C:\IBM\WebSphere\PortalServer\profileTemplates\
                                                    managed.portal
  -profileName wp_profile
  -profilePath C:\IBM\WebSphere\wp_profile
  -cellName Cell2
  -nodeName Node2
  -hostName wps8b.ibm.com
```

```
wps8b:/opt/IBM/WebSphere/AppServer/bin # ./manageprofiles.sh -create -templatePa
th /opt/IBM/WebSphere/PortalServer/profileTemplates/managed.portal -profileName
wp_profile -profilePath /opt/IBM/WebSphere/wp_profile -cellName Cell2 -nodeName
Node2 -hostName wps8b.ibm.com
INSTCONFSUCCESS: Success: Profile wp_profile now exists. Please consult /opt/IBM
/WebSphere/wp_profile/logs/AboutThisProfile.txt for more information about this
profile.
wps8b:/opt/IBM/WebSphere/AppServer/bin # 
```

4. Verify the script returns a Success message

7. Database Driver

WebSphere Portal supports the type 4 and type 2 driver scenario for specific databases. In this section we will be talking about how to setup the driver for a type 4 driver scenario. If you would like to setup a type 2 driver scenario, see the Type 2 configuration in the WebSphere Portal v8 Infocenter.

If the profile Templates was imported from another Portal environment that had the jdbc directory then use these steps as verification that the drivers are set correctly.

7.1 DB2 Driver

1. Create the "jdbc" directory on your additional node system if it does not exist.

```
      mkdir <WP_PROFILE>/PortalServer/jdbc/
```

```
UNIX    # mkdir /opt/IBM/WebSphere/wp_profile/PortalServer/jdbc/
Windows # mkdir C:\IBM\WebSphere\wp_profile\PortalServer\jdbc\
```

2. Copy the *db2jcc4.jar* and *db2jcc_license_cu.jar* from the DB2 server's java directory to the WebSphere Portal System's jdbc directory

Example FROM DB2:

UNIX
```
<DB2_INSTANCE>/sqllib/java/db2jcc4.jar
<DB2_INSTANCE>/sqllib/java/db2jcc_license_cu.jar

/home/db2inst1/sqllib/java/db2jcc4.jar
/home/db2inst1/sqllib/java/db2jcc_license_cu.jar
```

Windows
```
<DB2_HOME>/java/db2jcc4.jar
<DB2_HOME>/java/db2jcc_license_cu.jar

C:/IBM/SQLLIB/java/db2jcc4.jar
C:/IBM/SQLLIB/java/db2jcc_license_cu.jar
```

Example TO PORTAL:

UNIX
```
<PORTAL_JDBC>/db2jcc4.jar
<PORTAL_JDBC>/db2jcc_license_cu.jar

/opt/IBM/WebSphere/wp_profile/PortalServer/jdbc/db2jcc4.jar
/opt/IBM/WebSphere/wp_profile/PortalServer/jdbc/db2jcc_license_cu.jar
```

Windows
```
<PORTAL_JDBC>/db2jcc4.jar
<PORTAL_JDBC>/db2jcc_license_cu.jar

C:\IBM\WebSphere\wp_profile\PortalServer\jdbc\db2jcc4.jar
C:\IBM\WebSphere\wp_profile\PortalServer\jdbc\db2jcc_license_cu.jar
```

7.2 Oracle Driver

1. Create the "jdbc" directory on your additional node system

```
      mkdir <WP_PROFILE>/PortalServer/jdbc/
```

```
UNIX    # mkdir /opt/IBM/WebSphere/wp_profile/PortalServer/jdbc/
Windows # mkdir C:\IBM\WebSphere\wp_profile\PortalServer\jdbc\
```

2. Copy the *ojdbc6.jar* from the Oracle server to the WebSphere Portal System's jdbc directory
```
      <PORTAL_JDBC>/ojdbc6.jar
```

Example:

```
UNIX    /opt/IBM/WebSphere/wp_profile/PortalServer/jdbc/ojdbc6.jar
Windows C:\IBM\WebSphere\wp_profile\PortalServer\jdbc\ojdbc6.jar
```

7.3 Microsoft SQL Driver

1. Create the "jdbc" directory on your additional node system

```
    mkdir <WP_PROFILE>/PortalServer/jdbc/
```

```
Windows # mkdir C:\IBM\WebSphere\wp_profile\PortalServer\jdbc\
```

2. Copy the *sqljdbc4.jar* from the Micrsoft SQL server download directory to the WebSphere Portal System's jdbc directory

```
From:    <SQLDriverDownload>\sqljdbc_4.0\enu\sqljdbc4.jar
To:      <WP_PROFILE>\PortalServer\jdbc\sqljdbc4.jar
```

Example FROM Microsoft SQL Driver download:

```
Windows
From:    <SQLDriverDownload>\sqljdbc_4.0\enu\sqljdbc4.jar
To:      C:\IBM\WebSphere\wp_profile\PortalServer\jdbc\sqljdbc4.jar
```

8. Preparation

8.1 Property Files

8.1.1 wkplc_dbdomain.properties
Ensure that the wkplc_dbdomain.properties file has the correct database information in them.

1. Backup the wkplc_dbdomain.properties

```
<WP_PROFILE>/ConfigEngine/properties/wkplc_dbdomain.properties
```

Example:

```
UNIX    /opt/IBM/WebSphere/wp_profile/ConfigEngine/properties/
                                        wkplc_dbdomain.properties
Windows C:\IBM\WebSphere\wp_profile\ConfigEngine\properties\
                                        wkplc_dbdomain.properties
```

2. Open the wkplc_dbdomain.properties with an editor

3. Under "Personalization Feedback Database Properties" section, update the database information to match the primary Portal node

4. Under "LikeMinds Database Properties" section, update the database information to match the primary Portal node

5. Under "Release Database Properties" section, update the database information to match the primary Portal node

6. Under "Community Database Properties" section, update the database information to match the primary Portal node

7. Under "Customization Database Properties" section, update the database information to match the primary Portal node

8. Under "JCR Database Properties" section, update the database information to match the primary Portal node

9. Save the wkplc.dbdomain.properties

8.1.2 wkplc_dbtype.properties

Ensure that the wkplc_dbtype.properties files has the correct database information in them.

1. Backup the wkplc_dbtype.properties

```
    <WP_PROFILE>/ConfigEngine/properties/wkplc_dbtype.properties
```

Example:

```
UNIX     /opt/IBM/WebSphere/wp_profile/ConfigEngine/properties/
                                          wkplc_dbtype.properties
Windows C:\IBM\WebSphere\wp_profile\ConfigEngine\properties\
                                          wkplc_dbtype.properties
```

2. Open the wkplc_dbtype.properties with an editor

3. Update the correct database property section of the database used for the cluster
    o   IBM DB2 Database properties

- o Oracle Database properties

- o Microsoft SQL Server 2005 and 2008 properties

4. Save the wkplc_dbtype.properties

8.1.3 icm.propertes

1. Backup the icm.properties

```
<WP_PROFILE>/PortalServer/jcr/lib/com/ibm/icm/icm.properties
```

Example:
```
UNIX    /opt/IBM/WebSphere/wp_profile/PortalServer/jcr/lib/com/ibm/icm/
                                                         icm.properties
Windows C:\IBM\WebSphere\wp_profile\PortalServer\jcr\lib\com\ibm\icm\
                                                         icm.properties
```

2. Open the icm.properties with an editor

3. Verify/set the jcr.textsearch.enable variable to false

```
Before: jcr.textsearch.enabled=true
After:  jcr.textsearch.enabled=false
```

4. Save the icm.properties

8.2 Database Validation

1. Open an xterm or command prompt on the additional node server

2. Change to the ConfigEngine directory
```
      cd <WP_PROFILE>/ConfigEngine
```

Example:
```
UNIX    # cd /opt/IBM/WebSphere/wp_profile/ConfigEngine
Windows # cd C:\IBM\WebSphere\wp_profile\ConfigEngine
```

3. Run the following command to validate the database
```
      ConfigEngine.(sh/bat) validate-database
```

Example:
```
UNIX    # ./ConfigEngine.sh validate-database
Windows # ConfigEngine.bat validate-database
```

NOTE: If the command fails, fix the problem and run the command again.

```
cleanup-config:
Thu Mar 21 10:38:47 EDT 2013
     [echo] executing post-configuration tasks
BUILD SUCCESSFUL
isIseries currently set to: null

update-registry-sync-property:
Thu Mar 21 10:38:50 EDT 2013
     [echo] updated RegistrySynchronized in file wkplc.properties with value: true
wps8b:/opt/IBM/WebSphere/wp_profile/ConfigEngine #
```

4. Verify the script returns a BUILD SUCCESSFUL before continuing

9. Federate Node

```
wps8:/opt/IBM/WebSphere/AppServer/profiles/Dmgr01/bin # ./startManager.sh
ADMU0116I: Tool information is being logged in file
           /opt/IBM/WebSphere/AppServer/profiles/Dmgr01/logs/dmgr/startServer.log
ADMU0128I: Starting tool with the Dmgr01 profile
ADMU3100I: Reading configuration for server: dmgr
ADMU3200I: Server launched. Waiting for initialization status.
ADMU3000I: Server dmgr open for e-business; process id is 19114
wps8:/opt/IBM/WebSphere/AppServer/profiles/Dmgr01/bin #
```

1. Start the Deployment Manager server
   ```
   <DMGR_PROFILE>/startManager.(sh/bat)
   ```

2. Open an xterm or command prompt on the additional node system

3. Change to the bin directory of the WebSphere Portal profile
   ```
   cd <WP_PROFILE>/bin/
   ```

   Example:
   ```
   UNIX    # cd /opt/IBM/WebSphere/wp_profile/bin
   Windows # cd C:\IBM\WebSphere\wp_profile\bin
   ```

4. Run the following command to federate the WebSphere Portal additional node to the Deployment Manager

   ```
   addNode.(sh/bat) DMGR_HOSTNAME DMGR_SOAP_PORT
          -username DMGR_USER
          -password DMGR_PASSWORD
   ```

   Example for Unix:
   ```
   ./addNode.sh wps8.ibm.com 8879
          -username wpadmin
          -password passw0rd
   ```

   Example for Windows:
   ```
   addNode.bat wps8.ibm.com 8879
          -username wpadmin
          -password passw0rd
   ```

Note: If the WebSphere Portal WAS Admin ID and password is different from the Deployment Manager, add the following parameters to the addNode task:

-localusername local_was_admin_user
-localpassword local_was_admin_password

Example for Unix:
```
./addNode.sh wps8.ibm.com 8879
        -includeapps
        -username dmgradm
        -password dmgrpwd
        -localusername wpadmin
        -localpassword passw0rd
```

Example for Windows:
```
addNode.bat wps8.ibm.com 8879
        -includeapps
        -username dmgradm
        -password dmgrpwd
        -localusername wpadmin
        -localpassword passw0rd
```

```
ADMU0300I: The node Node2 was successfully added to the wps8Cell01 cell.


ADMU0306I: Note:
ADMU0302I: Any cell-level documents from the standalone wps8Cell01
           configuration have not been migrated to the new cell.
ADMU0307I: You might want to:
ADMU0303I: Update the configuration on the wps8Cell01 Deployment Manager with
           values from the old cell-level documents.


ADMU0306I: Note:
ADMU0304I: Because -includeapps was not specified, applications installed on
           the standalone node were not installed on the new cell.
ADMU0307I: You might want to:
ADMU0305I: Install applications onto the wps8Cell01 cell using wsadmin
           $AdminApp or the Administrative Console.


ADMU0003I: Node Node2 has been successfully federated.
wps8b:/opt/IBM/WebSphere/wp_profile/bin #
```

5. Verify the script returns a successfully federated message
```
Node <NODENAME> has been successfully federated.
```

Example:
```
Node Node2 has been successfully federated.
```

10. Add Cluster Member

10.1 Update wkplc.properties

1. Backup the wkplc.properties

```
    <WP_PROFILE>/ConfigEngine/properties/wkplc.properties
```

Example:

```
UNIX    /opt/IBM/WebSphere/wp_profile/ConfigEngine/properties/
                                              wkplc.properties
Windows C:\IBM\WebSphere\wp_profile\ConfigEngine\properties\
                                              wkplc.properties
```

2. Open the wkplc.properties with an editor

3. Update the following variables

```
WasSoapPort : Deployment Manager SOAP port
WasRemoteHostName : Deployment Manager Host Name.
WasUserid : Deployment Manager Administrative Userid
WasPassword : Deployment Manager Administrative password
ServerName : WebSphere Portal Server name for the additional node
ClusterName : the cluster name of the environment
PrimaryNode : set to false because this is an additional node
```

Example:
```
WasSoapPort : 8879
WasRemoteHostName : wps8.ibm.com
WasUserid : uid=wpadmin,o=defaultWIMFileBasedRealm
WasPassword : passw0rd
ServerName : WebSphere_Portal_2
ClusterName : PortalCluster
PrimaryNode : false
```

4. Save wkplc.properties

10.2 Portal Administrator (Federated LDAP Scenario)

Only do this step if the Deployment Manager is setup to use a federated ldap scenario.
For a stand-alone ldap scenario you will do this step at another time.

```
wps8:/opt/IBM/WebSphere/AppServer/profiles/Dmgr01/bin # ./startManager.sh
ADMU0116I: Tool information is being logged in file
           /opt/IBM/WebSphere/AppServer/profiles/Dmgr01/logs/dmgr/startServer.log
ADMU0128I: Starting tool with the Dmgr01 profile
ADMU3100I: Reading configuration for server: dmgr
ADMU3200I: Server launched. Waiting for initialization status.
ADMU3000I: Server dmgr open for e-business; process id is 19114
wps8:/opt/IBM/WebSphere/AppServer/profiles/Dmgr01/bin #
```

1. Start the Deployment Manager server

2. Open an xterm or command prompt on the additional node system

3. Change to the ConfigEngine directory of the WebSphere Portal profile
   ```
   cd <WP_PROFILE>/ConfigEngine/
   ```

   Example:
   ```
   UNIX    # cd /opt/IBM/WebSphere/wp_profile/ConfigEngine
   Windows # cd C:\IBM\WebSphere\wp_profile\ConfigEngine
   ```

4. Run the following command to set the Portal administration for the additional node
   ```
   ConfigEngine.(sh/bat) wp-change-portal-admin-user
           -DWasPassword=DMGR_PASSWORD
           -DnewAdminId=WP_ADMIN
           -DnewAdminPw=WP_PWD
   ```

   Example for UNIX:
   ```
   ./ConfigEngine.sh wp-change-portal-admin-user
           -DWasPassword=passw0rd
           -DnewAdminId=uid=wpadmin,o=defaultWIMFileBasedRealm
           -DnewAdminPw=passw0rd
   ```

   Example for Windows
   ```
   ConfigEngine.bat wp-change-portal-admin-user
           -DWasPassword=passw0rd
           -DnewAdminId=uid=wpadmin,o=defaultWIMFileBasedRealm
           -DnewAdminPw=passw0rd
   ```

   ```
   cleanup-config:
   Thu Mar 21 23:01:29 EDT 2013
       [echo] executing post-configuration tasks
   BUILD SUCCESSFUL
   isIseries currently set to: null

   update-registry-sync-property:
   Thu Mar 21 23:01:32 EDT 2013
       [echo] updated RegistrySynchronized in file wkplc.properties with value: true
   wps8b:/opt/IBM/WebSphere/wp_profile/ConfigEngine #
   ```

5. Verify the script returns a BUILD SUCCESSFUL before continuing

6. Stop the WebSphere_Portal process on the Additional node if it is running

10.3 Cluster Member

```
wps8:/opt/IBM/WebSphere/AppServer/profiles/Dmgr01/bin # ./startManager.sh
ADMU0116I: Tool information is being logged in file
           /opt/IBM/WebSphere/AppServer/profiles/Dmgr01/logs/dmgr/startServer.log
ADMU0128I: Starting tool with the Dmgr01 profile
ADMU3100I: Reading configuration for server: dmgr
ADMU3200I: Server launched. Waiting for initialization status.
ADMU3000I: Server dmgr open for e-business; process id is 19114
wps8:/opt/IBM/WebSphere/AppServer/profiles/Dmgr01/bin #
```

1. Start the Deployment Manager server if not started

2. Start the nodeagent on the WebSphere Portal environment if not started

3. Open an xterm or command prompt on the additional node system

4. Change to the ConfigEngine directory
   ```
   cd <WP_PROFILE>/ConfigEngine/
   ```

Example for Unix
```
UNIX    # cd /opt/IBM/WebSphere/wp_profile/ConfigEngine/
Windows # cd C:\IBM\WebSphere\wp_profile\ConfigEngine\
```

5. Run the following post federation command
```
ConfigEngine.(sh/bat) cluster-node-config-cluster-setup-additional
```

Example for UNIX
```
./ConfigEngine.sh cluster-node-config-cluster-setup-additional
```

Example for Windows
```
ConfigEngine.bat cluster-node-config-cluster-setup-additional
```

```
cleanup-config:
Fri Mar 22 00:09:19 EDT 2013
     [echo] executing post-configuration tasks
BUILD SUCCESSFUL
isIseries currently set to: null

update-registry-sync-property:
Fri Mar 22 00:09:22 EDT 2013
     [echo] updated RegistrySynchronized in file wkplc.properties with value: true
wps8b:/opt/IBM/WebSphere/wp_profile/ConfigEngine #
```

6. Verify the script returns a BUILD SUCCESSFUL before continuing

10.4 Portal Administrator (Stand-alone LDAP Scenario)

You will only do this step if the Deployment Manager is setup to use a stand-alone ldap scenario.

```
wps8:/opt/IBM/WebSphere/AppServer/profiles/Dmgr01/bin # ./startManager.sh
ADMU0116I: Tool information is being logged in file
           /opt/IBM/WebSphere/AppServer/profiles/Dmgr01/logs/dmgr/startServer.log
ADMU0128I: Starting tool with the Dmgr01 profile
ADMU3100I: Reading configuration for server: dmgr
ADMU3200I: Server launched. Waiting for initialization status.
ADMU3000I: Server dmgr open for e-business; process id is 19114
wps8:/opt/IBM/WebSphere/AppServer/profiles/Dmgr01/bin #
```

1. Start the Deployment Manager server if not started

2. Open an xterm or command prompt on the additional node system

3. Change to the ConfigEngine directory of the WebSphere Portal profile
```
cd <WP_PROFILE>/ConfigEngine/
```

Example:
```
UNIX    # cd /opt/IBM/WebSphere/wp_profile/ConfigEngine
Windows # cd C:\IBM\WebSphere\wp_profile\ConfigEngine
```

4. Run the following command to set the Portal administration for the additional node
```
ConfigEngine.(sh/bat) wp-change-portal-admin-user
        -DWasPassword=DMGR_PASSWORD
        -DnewAdminId=WP_ADMIN
        -DnewAdminPw=WP_PWD
```

Example for UNIX:
```
./ConfigEngine.sh wp-change-portal-admin-user
        -DWasPassword=passw0rd
        -DnewAdminId=uid=wpadmin,o=defaultWIMFileBasedRealm
        -DnewAdminPw=passw0rd
```

Example for Windows
```
ConfigEngine.bat wp-change-portal-admin-user
        -DWasPassword=passw0rd
        -DnewAdminId=uid=wpadmin,o=defaultWIMFileBasedRealm
        -DnewAdminPw=passw0rd
```

```
cleanup-config:
Fri Mar 22 00:27:47 EDT 2013
     [echo] executing post-configuration tasks
BUILD SUCCESSFUL
isIseries currently set to: null

update-registry-sync-property:
Fri Mar 22 00:27:49 EDT 2013
     [echo] updated RegistrySynchronized in file wkplc.properties with value: true
wps8b:/opt/IBM/WebSphere/wp_profile/ConfigEngine #
```

7. Verify the script returns a BUILD SUCCESSFUL before continuing

10.5 Update Profile Environment Entries

Only follow this section if the profile template were copied from a server with a different profile directory.

10.5.1   Delete Profile Environment Entries

```
wps8:/opt/IBM/WebSphere/AppServer/profiles/Dmgr01/bin # ./startManager.sh
ADMU0116I: Tool information is being logged in file
           /opt/IBM/WebSphere/AppServer/profiles/Dmgr01/logs/dmgr/startServer.log
ADMU0128I: Starting tool with the Dmgr01 profile
ADMU3100I: Reading configuration for server: dmgr
ADMU3200I: Server launched. Waiting for initialization status.
ADMU3000I: Server dmgr open for e-business; process id is 19114
wps8:/opt/IBM/WebSphere/AppServer/profiles/Dmgr01/bin #
```
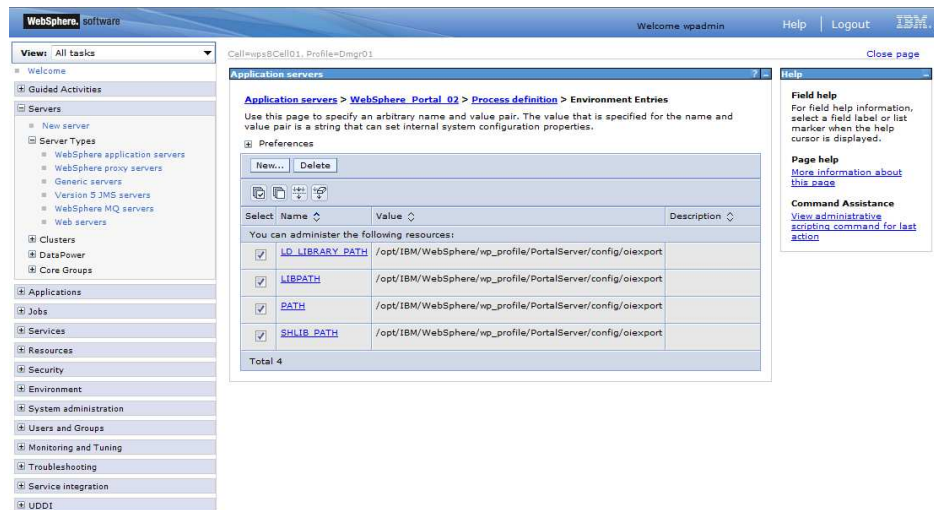
1. Start the Deployment Manager server if not started

2. Open a browser and set the URL to the Deployment Manager console

   ```
   http://<HOSTNAME>:<PORT>/ibm/console
   https://<HOSTNAME>:<PORT>/ibm/console
   ```
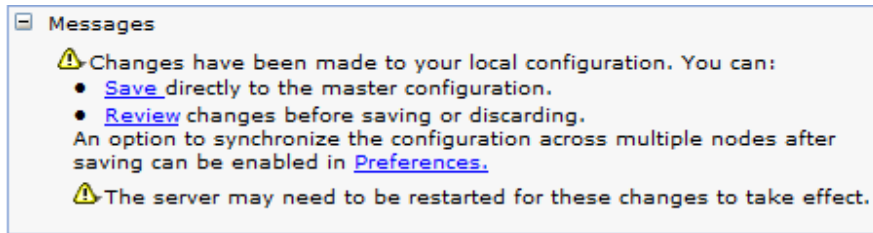
   Example:
   ```
   http://wps8.ibm.com:9061/ibm/console
   https://wps8.ibm.com:9044/ibm/console
   ```

3. Login as the WebSphere Application Server administrator (Deployment Manager Administrator)

4. Navigate to Servers > Server Types > WebSphere application servers

5. Click on the additional node server (WebSphere_Portal_2)

6. Under Server Infrastructure, expand Java Process Management

7. Click on Process definition

8. Under Additional Properties, click on Environment Entries

9. Delete the following Entries
   o LD_LIBRARIES_PATH
   o LIBPATH
   o PATH
   o SHLIB_PATH

Messages

⚠ Changes have been made to your local configuration. You can:
  • Save directly to the master configuration.
  • Review changes before saving or discarding.
An option to synchronize the configuration across multiple nodes after saving can be enabled in Preferences.

⚠ The server may need to be restarted for these changes to take effect.

10. Click Save to save to the master configuration

10.5.2   Create Profile Environment Entries

1. Open an xterm or command prompt on the additional node system

2. Change to the ConfigEngine directory of the WebSphere Portal profile
```
cd <WP_PROFILE>/ConfigEngine/
```

Example:
```
UNIX    # cd /opt/IBM/WebSphere/wp_profile/ConfigEngine
Windows # cd C:\IBM\WebSphere\wp_profile\ConfigEngine
```

3. Run the following command to recreate the profile entries
```
ConfigEngine.(sh/bat) profile-update-entries
```

Example
```
UNIX    # ./ConfigEngine.sh profile-update-entries
Windows # ConfigEngine.bat profile-update-entries
```


```
cleanup-config:
Fri Mar 22 09:56:47 EDT 2013
    [echo] executing post-configuration tasks
BUILD SUCCESSFUL
isIseries currently set to: null

update-registry-sync-property:
Fri Mar 22 09:56:49 EDT 2013
    [echo] updated RegistrySynchronized in file wkplc.properties with value: true
wps8b:/opt/IBM/WebSphere/wp_profile/ConfigEngine #
```

4. Verify the script returns a BUILD SUCCESSFUL before continuing

10.5.3   Verify Profile Environment Entries

1. Open a browser and set the URL to the Deployment Manager console

```
http://<HOSTNAME>:<PORT>/ibm/console
https://<HOSTNAME>:<PORT>/ibm/console
```

Example:
```
http://wps8.ibm.com:9061/ibm/console
```

```
https://wps8.ibm.com:9044/ibm/console
```

2. Login as the WebSphere Application Server administrator (Deployment Manager Administrator)

3. Navigate to Servers > Server Types > WebSphere application servers

4. Click on the additional node server (WebSphere_Portal_2)

5. Under Server Infrastructure, expand Java Process Management

6. Click on Process definition

7. Under Additional Properties, click on Environment Entries

8. Verify the Profile Environment Entries have been created and correct

10.6 Restart

1. Open an xterm or command prompt on the additional node system

2. Change to the bin directory of the WebSphere Portal profile
```
   cd <WP_PROFILE>/bin
```

Example:
```
UNIX     # cd /opt/IBM/WebSphere/wp_profile/bin
Windows # cd C:\IBM\WebSphere\wp_profile\bin
```

```
wps8b:/opt/IBM/WebSphere/wp_profile/bin # ./stopServer.sh WebSphere_Portal_02 -username wpadmin -pas
sword passw0rd
ADMU0116I: Tool information is being logged in file
           /opt/IBM/WebSphere/wp_profile/logs/WebSphere_Portal_02/stopServer.log
ADMU0128I: Starting tool with the wp_profile profile
ADMU3100I: Reading configuration for server: WebSphere_Portal_02
ADMU3201I: Server stop request issued. Waiting for stop status.
ADMU4000I: Server WebSphere_Portal_02 stop completed.

wps8b:/opt/IBM/WebSphere/wp_profile/bin #
```

3. Run the following command to stop the new WebSphere Portal process if it is started. If the process is not started, you may continue on to the next step
```
   stopServer.(sh/bat) <ADDITIONAL NODE PROCESS>
                        -username <WASADM> -password <WASPWD>
```

Example
```
UNIX     # ./stopServer.sh WebSphere_Portal_2
                                -username wpadmin -password XXXX
Windows # stopServer.bat WebSphere_Portal_2
                                -username wpadmin -password XXXX
```

4. Verify the command returns a stop completed message.

```
wps8b:/opt/IBM/WebSphere/wp_profile/bin # ./startServer.sh WebSphere_Portal_02
ADMU0116I: Tool information is being logged in file
            /opt/IBM/WebSphere/wp_profile/logs/WebSphere_Portal_02/startServer.log
ADMU0128I: Starting tool with the wp_profile profile
ADMU3100I: Reading configuration for server: WebSphere_Portal_02
ADMU3200I: Server launched. Waiting for initialization status.
ADMU3000I: Server WebSphere_Portal_02 open for e-business; process id is 2616
wps8b:/opt/IBM/WebSphere/wp_profile/bin # 
```

5. Run the following command to start the new WebSphere Portal process

```
startServer.(sh/bat) <ADDITIONAL NODE PROCESS>
```

Example

```
UNIX    # ./startServer.sh WebSphere_Portal_2
Windows # startServer.bat WebSphere_Portal_2
```

6. Verify the command returns an open for e-business message

11. Validate (optional)

11.1 Check Cluster Member

```
wps8:/opt/IBM/WebSphere/AppServer/profiles/Dmgr01/bin # ./startManager.sh
ADMU0116I: Tool information is being logged in file
            /opt/IBM/WebSphere/AppServer/profiles/Dmgr01/logs/dmgr/startServer.log
ADMU0128I: Starting tool with the Dmgr01 profile
ADMU3100I: Reading configuration for server: dmgr
ADMU3200I: Server launched. Waiting for initialization status.
ADMU3000I: Server dmgr open for e-business; process id is 19114
wps8:/opt/IBM/WebSphere/AppServer/profiles/Dmgr01/bin # 
```
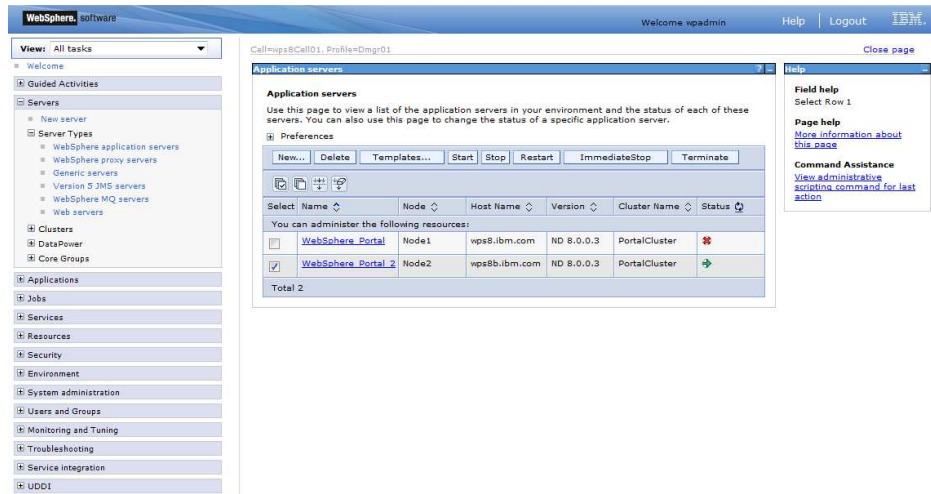
1. Start the Deployment Manager server if not started

2. Open a browser and set the URL to the Deployment Manager console

```
http://<HOSTNAME>:<PORT>/ibm/console
https://<HOSTNAME>:<PORT>/ibm/console
```

Example:

```
http://wps8.ibm.com:9061/ibm/console
https://wps8.ibm.com:9044/ibm/console
```

3. Login as the WebSphere Application Server administrator (Deployment Manager Administrator)

4. Navigate to Servers > Cluster > WebSphere application server clusters

5. Select the Portal Cluster (PortalCluster)

6. Under Additional Properties, expand Cluster members

7. Verify the newly added Additional Node WebSphere Portal process is present.

11.2 Stop Additional Node Portal Process

1. Start the Deployment Manager server if not started
   ```
   <DMGR_PROFILE>/bin/startManager.(sh/bat)
   ```

2. Start Additional node nodeagent if not started
   ```
   <WP_PROFILE>/bin/startNode.(sh/bat)
   ```
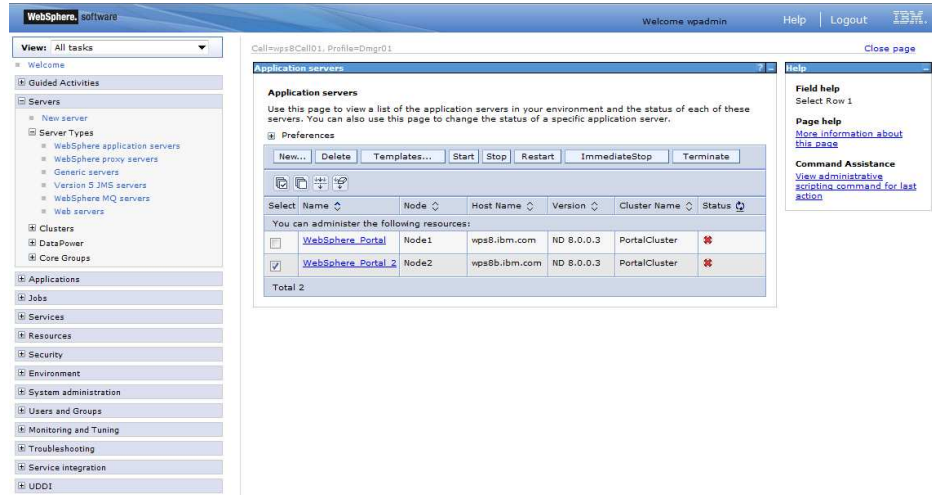
3. Open a browser and set the URL to the Deployment Manager console

   ```
   http://<HOSTNAME>:<PORT>/ibm/console
   https://<HOSTNAME>:<PORT>/ibm/console
   ```
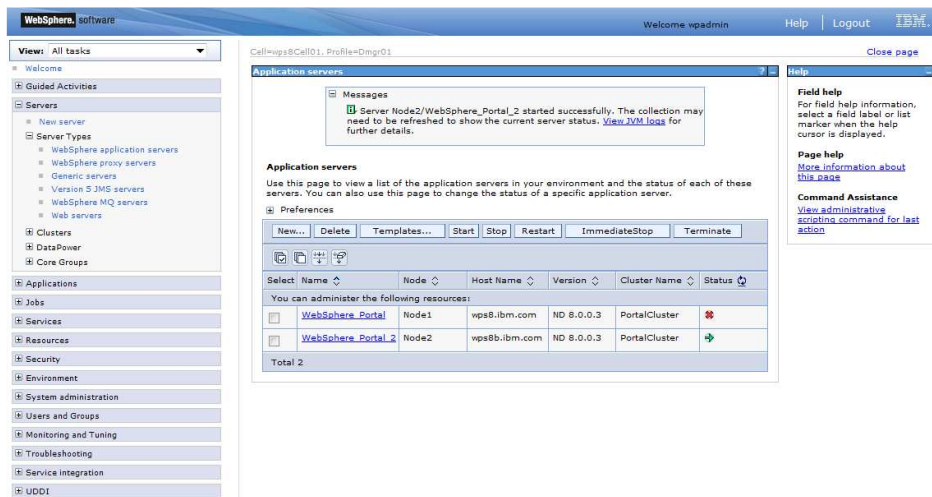
   Example:
   ```
   http://wps8.ibm.com:9061/ibm/console
   https://wps8.ibm.com:9044/ibm/console
   ```

4. Login as the WebSphere Application Server administrator (Deployment Manager Administrator)

5. Navigate to Servers > Server Types > WebSphere application servers

6. Check the checkbox by the additional node Portal process server name

7. Click the Stop button
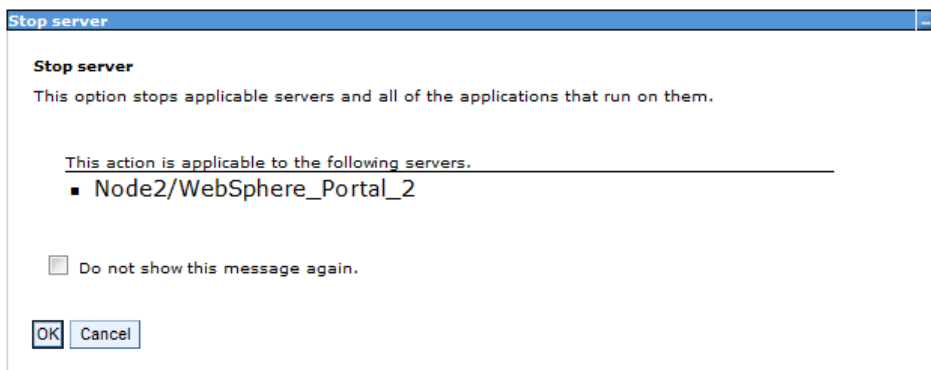
8. Click OK
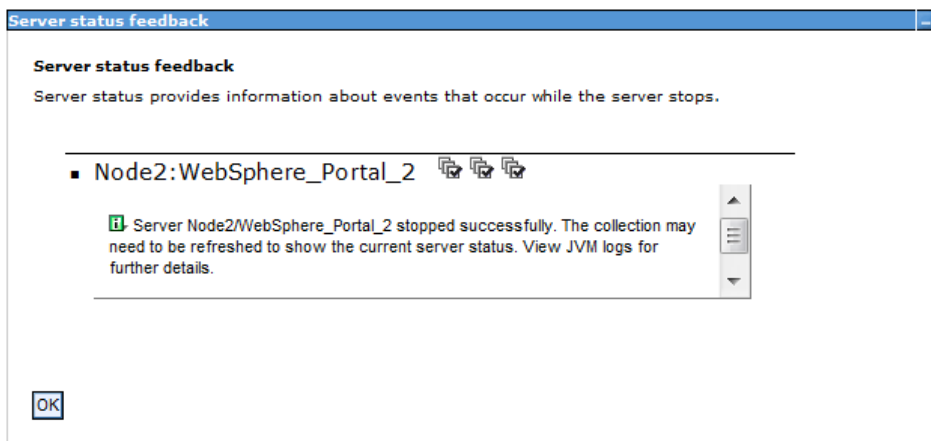
9. Wait until a stopped successfully message appears

10. Click OK
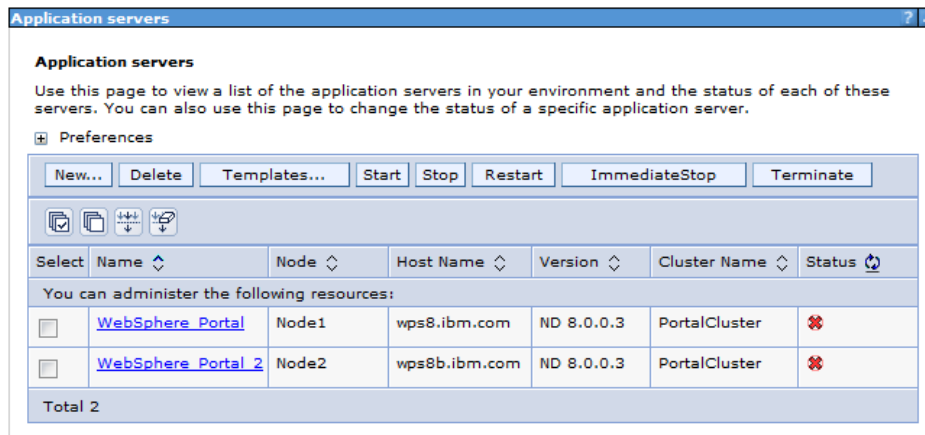
11. Verify the Status icon is red

11.3 Start Additional Node Portal Process

1. Start the Deployment Manager server if not started
   ```
   <DMGR_PROFILE>/bin/startManager.(sh/bat)
   ```

2. Start Additional node nodeagent if not started
   ```
   <WP_PROFILE>/bin/startNode.(sh/bat)
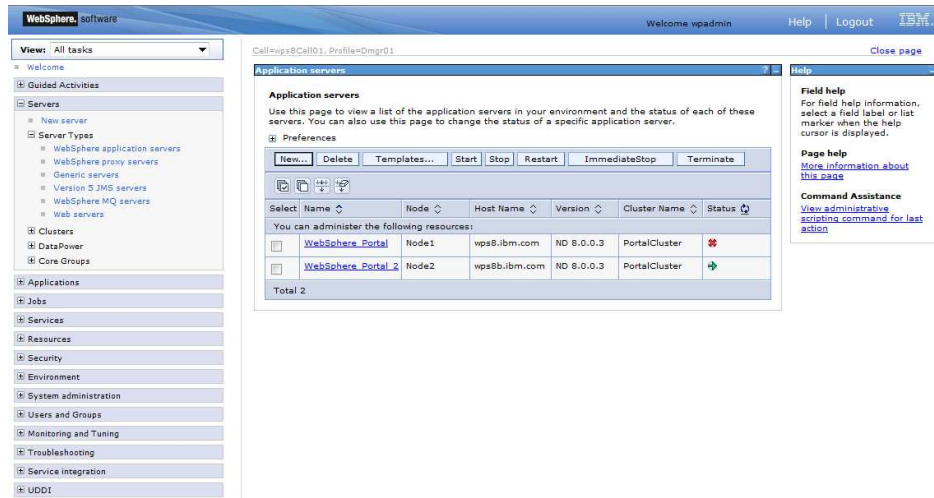   ```

3. Open a browser and set the URL to the Deployment Manager console

   ```
   http://<HOSTNAME>:<PORT>/ibm/console
   https://<HOSTNAME>:<PORT>/ibm/console
   ```

   Example:
   ```
   http://wps8.ibm.com:9061/ibm/console
   https://wps8.ibm.com:9044/ibm/console
   ```

4. Login as the WebSphere Application Server administrator (Deployment Manager Administrator)

5. Navigate to Servers > Server Types > WebSphere application servers

6. Check the checkbox by the additional node Portal process server name

7. Click the Start button

8. Wait until the red status icon turns green

11.4 Check SystemOut.log

1. Review the SystemOut.log for any unrecognized errors.
```
<WP_PROFILE>/logs/<PROCESS_NAME>/SystemOut.log
```

Example:
```
UNIX    /opt/IBM/WebSphere/wp_profile2/logs/WebSphere_Portal_2/
                                                  SystemOut.log
Windows C:\IBM\WebSphere\wp_profile2\logs\WebSphere_Portal_2\
                                                  SystemOut.log
```

11.5 Portal

11.5.1   Portal Port

1. Start the Deployment Manager server if not started
    ```
    <DMGR_PROFILE>/bin/startManager.(sh/bat)
    ```

2. Start Additional node nodeagent if not started
    ```
    <WP_PROFILE>/bin/startNode.(sh/bat)
    ```

3. Open a browser and set the URL to the Deployment Manager console

    ```
    http://<HOSTNAME>:<PORT>/ibm/console
    https://<HOSTNAME>:<PORT>/ibm/console
    ```

    Example:
    ```
    http://wps8.ibm.com:9061/ibm/console
    https://wps8.ibm.com:9044/ibm/console
    ```

4. Login as the WebSphere Application Server administrator (Deployment Manager Administrator)

5. Navigate to Servers > Server Types > WebSphere application servers

6. Click on the Additional node Portal process (WebSphere_Portal_2)

7. Under Communications, expand Ports

8. The port used for the WebSphere Portal URL will be the WC_defaulthost. Copy the number down for the next section.

WC_defaulthost: _____

Example:
```
WC_defaulthost:    10050
```

11.5.2   Portal URL

1. Open a browser and set the URL to the WebSphere Portal Server of the additional node
```
http://<HOSTNAME>:<WC_defaulthost>/wps/portal
```

Example:
```
http://wps8b.ibm.com:10050/wps/portal
```

2. Login as the WebSphere Portal Administrator