Deploying WebSphere Commerce Patterns 1.1.1

Contents

Deploying WebSphere Commerce virtual system patterns

WebSphere Commerce provides virtual system patterns that you can use with IBM PureApplication System V1.1 W1500 or W1700 to deploy a virtual WebSphere Commerce environment.

Note:

- The WebSphere Commerce Patterns 1.1.1 and earlier are deprecated, effective October 21, 2014, with the removal of the IBM Transactional Database Pattern from IBM PureApplication Software V2.0 and all PureApplication Systems W2700, W2500, W1700, and W1500. The prerequisite IBM Transactional Database Pattern is only available on request as a supported program for PureApplication System and PureApplication Software until March 31, 2015. The current WebSphere Commerce Pattern 1.1.1 is not compatible with the replacement pattern, IBM DB2 for BLU Acceleration Pattern. It is recommended that you update to the latest WebSphere Commerce Pattern. For more information, see Deploying WebSphere Commerce virtual system patterns or virtual application patterns

- IBM WebSphere Commerce Patterns 1.1.1 for multiplatform has the following limitations:

  - You can update your environment with newer fix packs or interim fixes, but you cannot update to a newer feature pack. The pattern includes Feature Pack 7 and Fix Pack 8.

  - You cannot customize deployment configuration files for non-production virtual environments. For example, you cannot change hardcoded values such as database name or WebSphere Commerce instance name. For the list of hardcoded values and IDs, see "Overview of the deployed WebSphere Commerce environment" on page 17.

  It is recommended that you upgrade to the latest version of IBM WebSphere Commerce Patterns which includes the latest Feature Pack and Fix Pack.

All Virtual System patterns, except for the virtual software library, generally require the same basic steps to deploy.

Select one of the following pattern types for specific instructions on deploying the pattern:

Pattern	Description
Non-production environments	These patterns provide virtualization of a single-tier environment for non-production purposes. Deploy these virtual system patterns with IBM PureApplication System to get 64-bit virtual machines with WebSphere Commerce Enterprise Version 7, Feature Pack 7, and Fix Pack 8 installed and enabled on AIX or Red Hat Enterprise Linux.

Pattern	Description
Production environments	These patterns provide a multitier environment for production purposes. Deploy these virtual system patterns with IBM PureApplication System to get 64-bit virtual machines with WebSphere Commerce Enterprise Version 7, Feature Pack 7, and Fix Pack 8 installed and enabled on AIX or Red Hat Enterprise Linux.

Alternatively, you can review the following high-level process as a deployment checklist:

Before you begin

These patterns were designed to work with specific versions of WebSphere Application Server and DB2.
- Ensure that you use the following versions of WebSphere Application Server and DB2, as provided in the IBM WebSphere Commerce Patterns 1.1.1 for multiplatform eAssembly:
  - IBM WebSphere Application Server 7.0.0.29
  - IBM DB2 Enterprise Server Edition Version 9.7.0.8

Procedure

1. Obtain the IBM WebSphere Commerce Patterns 1.1.1 for multiplatform eAssembly. This eAssembly contains all of the virtual system patterns, and any prerequisite IBM software for a fully functional deployment. For more information about the specific contents of the eAssembly, see "Obtaining the WebSphere Commerce virtual system pattern eAssemblies" on page 19.
2. If you are deploying one of the following, create or expand the base virtual pattern image:
   - IBM WebSphere Commerce Patterns 1.1.1 non-production environments for multiplatform
   - IBM WebSphere Commerce Patterns 1.1.1 for multiplatform (production environments)

   See the specific pattern documentation for details on what must be provided or modified for the base image.
3. Import the WebSphere Commerce virtual system pattern. For more information about importing a virtual system pattern, see "Importing the virtual system pattern" on page 21.
4. Set up a file server to host any software installation files for your newly deployed system.
   a. Move any software installation files that you want to install on your virtual system from the eAssembly to the file server or software library.
5. Provide the values for any mandatory parameters and any configurable default parameters. Each pattern contains different mandatory parameters and configurable default parameters. See the specific pattern documentation for details on these values.
6. Deploy the virtual system pattern. For more information, see "Deploying the virtual system pattern" on page 33.

7. Verify the deployed system. See the specific pattern documentation for the important logs to view.

Deploying non-production virtual environments

IBM WebSphere Commerce Patterns 1.1.1 non-production environments for multiplatform provide virtualization of a single-tier environment for non-production purposes. Deploy these virtual system patterns with IBM PureApplication System to get 64-bit virtual machines with WebSphere Commerce Enterprise Version 7, Fix Pack 8, and Feature Pack 7 installed and enabled on AIX or Red Hat Enterprise Linux. After deployment, you can use the virtualized WebSphere Commerce test environment for non-production purposes, as if you installed and configured WebSphere Commerce in a native environment. If you have customizations in a WebSphere Commerce Build and Deployment tool server deployment package, you can have them deployed along with the newly created virtual system. If you want to apply any newer fix packs or interim fixes in the future, you can deploy them to the virtual system instance in the workload console.

Note: IBM WebSphere Commerce Patterns 1.1.1 non-production environments for multiplatform does not support updating to newer feature packs.

About this task

This deployment is tested on an environment with the following minimum software levels:
- WebSphere Enterprise Commerce Version 7 Fix Pack 8
- WebSphere Commerce Version 7 Feature Pack 7
- WebSphere Application Server Hypervisor Edition 7.0.0.29, stand alone part
- DB2 Version 9.7.0.8
- IBM PureApplication System 1.1 or later 1.1.0.x fix pack
- VMWare ESX 5.0

Procedure

Obtaining the WebSphere Commerce virtual system pattern eAssemblies

The IBM WebSphere Commerce Patterns 1.1.1 for multiplatform are available only to WebSphere Commerce Enterprise Edition customers.

Procedure

1. Download the patterns.
   a. Open a web browser and go to the website:
   b. Search for part number CIYA7EN in the WebSphere Commerce Enterprise eAssemblies. The description is "IBM WebSphere Commerce Patterns 1.1.1 for multiplatform, English"
   c. Download the file and extract it to a temporary directory. The file contains seven .zip files:

   WC_PRODUCTION_PATTERN_V1.1.1_RHEL_X86.zip
   > This .zip file is IBM WebSphere Commerce Pattern V1.1.1 for Red Hat Enterprise Linux for x86.

WC_PRODUCTION_PATTERN_V1.1.1_AIX_POWER.zip
This `.zip` file is IBM WebSphere Commerce Pattern V1.1.1 for AIX for Power.

WC_UNITTEST_PATTERN_V1.1.1_RHEL_X86.zip
This `.zip` file is IBM WebSphere Commerce Pattern V1.1.1 non-production environment for Red Hat Enterprise Linux for x86.

WC_UNITTEST_PATTERN_V1.1.1_AIX_POWER.zip
This `.zip` file is IBM WebSphere Commerce Pattern V1.1.1 non-production environment for AIX for Power.

2. Extract the patterns that you want to deploy into their own directories. The patterns must be in their own directories when you import it, later in the deployment procedure.

Preparing the base WebSphere Application Server image

You must prepare the base WebSphere Application Server image before you deploy the virtual system pattern.

Attention: These steps do not apply to AIX patterns. Proceed to the next topic.

Procedure

1. Expand the size of the file system on the WebSphere Application Server Hypervisor Edition images. Follow these instructions:
   - http://www.ibm.com/support/knowledgecenter/SSNLXH_1.0.0/ com.ibm.ipas.doc/iwd/pct_clone_vi.html

   Recommended minimum sizes for the file system in the WebSphere Application Server Hypervisor Edition image:
   - Root file system (for example, `RHEL62-64.vmdk`): 12 GB
   - WebSphere Application Server binary files: 8 GB
   - WebSphere Application Server profiles: 6 GB
   - WebSphere IBM HTTP Server: 2 GB

   Avoid trouble: Make sure that your image has a unique name and version number. If there are multiple images with the same name, when you attempt to import the pattern the operation will fail. If there are multiple images with the same version number, you might find it difficult to identify them in the virtual system editor.

2. Complete the following steps in IBM PureApplication System to expand the partition and file system. These steps are not necessary if you are using the IBM PureApplication Service.
   a. Extending and capturing virtual images.
   b. Extending partition and file system sizes.
   c. Extending and capturing virtual images.

3. Make note of the following information about the virtual image.
   - Image reference number
   - Version, as specified in Step 2. b)
   - Image name, as specified in Step 2. b)

   You must provide these values in a subsequent step.

Setting up a file server to host the required installation files

The IBM WebSphere Commerce Patterns 1.1.1 non-production environments for multiplatform include scripts that install DB2, WebSphere Commerce Enterprise Edition Version 7, Feature Pack 7, and Fix Pack 8. The installation files are downloaded from a file server that you set up and provide. Use the information in this topic to set up your file server.

Procedure

1. Prepare a file server to host the files that are used by the pattern. The file server must be accessible from the deployed virtual machines. The scripts that are part of the pattern download the files from your file server. The supported file server protocols are FTP, HTTP, and SCP.

2. Gather the required files. The following software installation packages are required to use IBM WebSphere Commerce Patterns 1.1.1 non-production environments for multiplatform:

DB2 Database Enterprise Edition Version 9.7.0.8, or higher Version 9.7 fix pack Get the DB2 installation file from the DB2 technote, Download DB2 Fix Packs by version for DB2 for Linux, UNIX, and Windows

   a. Select the DB2 V9.7 Fix Pack 8, or higher.

   b. On the DB2 9.7 fix pack page, expand the section for Linux 64-bit, x86-64 on AMD64 and Intel EM64T.

   c. Select the file named "IBM Data Server Client".

Ensure that the file is in a compressed tar archive (either a `*.tar.gz` or `*.tgz` file).

WebSphere Commerce V7.0 Enterprise Edition Get the installation file from the IBM passport advantage. Search for part number CZ6CDML, then download the associated installation file. Ensure that the file is in zip format (that is, ensure that its extension is `.zip`).

WebSphere Commerce V7.0 Feature Pack 7 Get the installation file from the IBM passport advantagePassport advantage. Search for part number CIWY6ML, then download the associated installation file. Ensure that the file is in zip format (that is, ensure that its extension is `.zip`).

WebSphere Commerce V7 Fix Pack 8 for Server Get the Fix Pack 8 for WebSphere Commerce 7.0 Server . Ensure that the file is in `.PAK` format (that is, ensure that its extension is `.pak`). For more information about the WebSphere Commerce Version 7.0.0.8 Fix Pack, see the fix pack technote.

WebSphere Commerce V7 Update Installer 7.0.0.8 Get the installation file. Ensure that the file is in zip format (that is, ensure that its extension is `.zip`). For more information, see the UPDI technote.

3. Copy the required files to the file server.

4. For each installation file, note the URL to the image. For example, `ftp://ftp.mycompany.com/files/db2.tgz` This information is needed in subsequent steps that are required to deploy the test pattern.

5. Note the username and password that is required to access the files on the file server. This information is also needed in subsequent steps that are required to deploy the test pattern.

Importing the virtual system pattern

Import the IBM WebSphere Commerce Pattern V1.1.1 non-production environment for AIX for Power or the IBM WebSphere Commerce Pattern V1.1.1 non-production environment for Red Hat Enterprise Linux for x86 into the IBM PureApplication System or the IBM PureApplication Service.

Before you begin

Obtain the virtual system pattern from Passport Advantage and extract it.

Procedure

1. Run the IBM PureApplication System or the IBM PureApplication Service command-line interface command to import the WebSphere Commerce virtualization configuration pattern.

   - For the IBM PureApplication System:

     ```
     ipas_cli_installDir\bin\pure -h ipas_hostname -u ipas_admin_username -p ipas_admin_user_passwor
     -f ipas_cli_installDir\samples\importPatterns.py -s production_dir -a
     ```

   - For the IBM PureApplication Service:

     ```
     ipas_cli_installDir\bin\deployer -h ipas_hostname -u ipas_admin_username -p ipas_admin_user_pas
     -f ipas_cli_installDir\samples\importPatterns.py -s production_dir -a
     ```

   Where

   - *ipas_cli_installDir* is the directory where you installed the IBM PureApplication System or IBM PureApplication Service command-line interface tools.
   - *ipas_hostname* is the fully qualified host name of your IBM PureApplication System or IBM PureApplication Service machine.
   - *ipas_admin_username* is the IBM PureApplication System or IBM PureApplication Service administrator user name.
   - *ipas_admin_user_password* is the IBM PureApplication System or IBM PureApplication Service administrator user password.
   - *production_dir* is the directory where you extracted the WebSphere Commerce virtualization configuration file.

   For example:

   - For the IBM PureApplication System:

     ```
     D:\pure.cli\bin\pure -h ipas.example.com -u cbadmin -p cbadmin -f D:\pure.cli\samples\importPat
     -s D:\VSP\testBuild\20130410-1158.Test -a
     ```

   - For the IBM PureApplication Service:

     ```
     D:\deployer.cli\bin\deployer -h ipas.example.com -u cbadmin -p cbadmin -f D:\pure.cli\samples\
     -s D:\VSP\testBuild\20130410-1158.Test -a
     ```

   Note: When you run the command, you might see messages on your console that say `Incorrect padding`. These messages do not indicate errors; they can be ignored.

2. Accept all license agreements. The IBM WebSphere Commerce Patterns 1.1.1 for multiplatform cannot be deployed until the licenses are accepted.

   a. Open the IBM PureApplication System or the IBM PureApplication Service workload console.

   b. Navigate to the **Patterns** > **Virtual Systems**

   c. Select the pattern that you imported.

   d. Scroll to the **License status in this pattern** section.

   e. In the **License agreement** section, click **Accept license**.

f. View and accept all the licenses.

g. Click **OK**.

h. Click the **Back** button in your web browser to return to the pattern.

Results

After the command completes successfully, the IBM WebSphere Commerce pattern is available in the IBM PureApplication System, along with the included script packages.

If the import fails with a message that states that the virtual image cannot be found, see Troubleshooting: Virtual system pattern fails to import.

Updating the WebSphere Commerce virtual system pattern

Update the WebSphere Commerce virtual system pattern to point at your WebSphere Application Server virtual image clone.

Procedure

1. Make note of information that you must provide about the image. In IBM PureApplication System, click **Catalog** > **Virtual Images** then select the image that you want to use as the base. Make note of the following information that you must supply in subsequent steps:
   - The image name, which is the name that you clicked to select the image
   - The image reference number
   - The version
2. Select the WebSphere Commerce virtual system pattern.
3. Click **Clone**
4. Provide a new, meaningful name for the clone.
5. Select the image name that you noted in Step 1.
6. Click **OK** to save the clone. Now it is ready to be deployed.
7. Optional: Click **Edit** to modify the values of frequently used parameters.
   - Edit the parameters now if you want to change them only once, then reuse the values that you specify in every subsequent deployment. You can lock the cloned pattern to prevent modification by accident.
   - If you do not want to reuse the values that you specify in every subsequent deployment, you do not need to supply the values now in the pattern editor, Instead, you (or your users) can change them in the web interface each time a system is deployed from the pattern. If you want to, you can always override the parameters at deployment time.

   For more information about the parameters, see "Parameters defined for the virtual system pattern."

Parameters defined for the virtual system pattern

The parameters that are used when you deploy the virtual system pattern are defined in the `patterns.json` file.

You can modify any non-fixed parameter values either when you update the virtual system pattern, or when you deploy it.

The IBM WebSphere Commerce Patterns 1.1.1 non-production environments for multiplatform are made up of the following component parts.

- "Parameters for the WebSphere Application Server Hypervisor Edition image"
- "Parameters for the Commerce Software package"
- "Parameters for the Commerce Database package" on page 9
- "Parameters for the Commerce Application package" on page 10
- Parameters for the Add Disk Add-on package
- "Parameters for the Commerce Customization package" on page 11

Parameters for the WebSphere Application Server Hypervisor Edition image

The following table shows the parameters that are defined for the WebSphere Application Server Hypervisor parts that are included in these patterns. The table indicates which parameters can be modified and which parameters cannot be modified.

User interface label	Modifiable
Virtual CPUs	Yes
Memory size (MB)	Yes
Reserve physical CPUs	Yes
Reserve physical memory	Yes
Cell name	No
Node name	No
Feature packs	No
Password (root)	Yes
WebSphere administrative user name	Yes
WebSphere administrative password	Yes
Enable VNC	No

Parameters for the Commerce Software package

The following table explains which values need to be filled out for the **Commerce Software** script package. It also explains the effect that each value has when you deploy an instance of the pattern and which values cannot be modified.

The values for the **Commerce Software** script package all depend on how you set up your file server in the "Setting up a file server to host the required installation files" on page 5.

Parameter	Modifiable	Value
downloadUserID	Yes. The default value must be changed.	The user ID required to access and download the installation files.
downloadUserPassword	Yes. The default value must be changed.	The correct password for the user ID required to access and download the installation files.

Parameter	Modifiable	Value
db2InstallerUrl	Yes. The default value must be changed.	The URL for the DB2 installation `tar.gz` file. For example: `https://myserver.mycompany.com/software/DB2_ESE_10_Linux_x86-64.tar.gz`
wcInstallerUrl	Yes. The default value must be changed.	The URL for the WebSphere Commerce Enterprise installation `.zip` file. For example: `https://myserver.mycompany.com/software/CZ6CDML.zip`
wcUpdiInstallerUrl	Yes. The default value must be changed.	The URL for the WebSphere Commerce Update Installer installation `.zip` file. For example: `https://myserver.mycompany.com/software/download.updii.7007.linux.amd64.zip`
wcFixpackInstallerUrl	Yes. The default value must be changed.	The URL for the WebSphere Commerce fix pack `.pak` file. For example: `https://myserver.mycompany.com/software/7.0.0-WS-WCServer-FP008.pak.`
wcFeaturePackInstallerUrl	Yes. The default value must be changed.	The URL for the WebSphere Commerce Feature Pack installation `.zip` file. For example: `https://myserver.mycompany.com/software/WC_V7.0_-_FEP7_FOR_MP_ML.zip.`

Parameters for the Commerce Database package

The following table explains which values need to be filled out for the **Commerce Database** script package. It also explains the effect that each value has when you deploy an instance of the pattern and which values cannot be modified.

Parameter	Modifiable	Value
dbUserName	No	db2inst1
dbName	No	COMM
dbType	No	DB2

Parameters for the Commerce Application package

The following table explains which values need to be filled out for the **Commerce Application** script package. It also explains the effect that each value has when you deploy an instance of the pattern and which values cannot be modified.

Parameter	Modifiable	Value
dbHostname	No	${*StandalonePart.hostname*}.${*StandalonePart.*
dbServerPort	No	50000
isRemoteDB	No	false
dbName	No	COMM
dbUserName	No	db2inst1
dbUserPassword	No	eCom4iwd
dbaName	No	db2inst1
dbaPassword	No	eCom4iwd
isContentManagement	Yes. The default value must be changed.	• Enter true to create a WebSphere Commerce authoring instance. • Enter false to create a WebSphere Commerce production instance
merchantKey	Yes	A 16-digit hexadecimal number that you provide, which is used to encrypt sensitive data in the WebSphere Commerce database. For more information about the merchant key, see the section about the generation of strong cryptographic keys in the Protect stored cardholder data topic.

Parameters for the Add Disk Add-on package

The following table explains which values need to be filled out for the **Add Disk Add-on** script package. It also explains the effect that each value has when you deploy an instance of the pattern and which values cannot be modified.

For the main WebSphere Commerce storage partition:

Parameter	Modifiable	Value
DISK_SIZE_GB	Yes	*20*
FILESYSTEM_TYPE	No	ext3
MOUNT_POINT	No	/opt/IBM/WebSphere/ CommerceServer

For the DB2 database storage partition:

Parameter	Modifiable	Value
DISK_SIZE_GB	Yes	*10*
FILESYSTEM_TYPE	No	ext3
MOUNT_POINT	No	/db2fs

Parameters for the Commerce Customization package

The following table explains which values need to be filled out for the **Commerce Customization** script package. It also explains the effect that each value has when you deploy an instance of the pattern and which values cannot be modified.

Parameter	Modifiable	Value
performWcbdDeploy	Yes. The default value must be changed.	Controls whether the WebSphere Commerce Build and Deployment tool runs or does not run. Enter true if you have a WebSphere Commerce Build and Deployment server deployment package to deploy. Otherwise, enter false.
antTgzDownloadURL	Yes	The URL for the Apache Ant tar.gz file (for example, ftp:\/\/ myserver.mycompany.com\/ apache-ant-1.8.4- bin.tar.gz). Enter \"false\" if you are not doing a WebSphere Commerce Build and Deployment tool deployment."
antContribJarDownloadURL	Yes	The URL for the ant-contrib JAR file (for example, ftp:\/\/ myserver.mycompany.com\/ ant-contrib-1.0b3.jar). Enter \"false\" if you are not doing a WebSphere Commerce Build and Deployment tool deployment."

Parameter	Modifiable	Value
wcbdZipDownloadURL	Yes	The URL for the WebSphere Commerce Build and Deployment tool installation `.zip` file. For example: *https:// myserver.mycompany.com/ software/ mycompany.wcbd.package.zip.* Specify a URL only if you set the `performWcbdDeploy` parameter to `true`. Enter `false` if you are not deploying using the WebSphere Commerce Build and Deployment tool.
wcbdAntBuildfile	Yes	The Ant build file in the deployment package that you want to run. For example: `wcbd-deploy.xml`. Specify the Ant build file only if you set the `performWcbdDeploy` parameter to `true`. Enter `false` if you are not deploying using the WebSphere Commerce Build and Deployment tool.
wcbdTargetEnv	Yes	The WebSphere Commerce Build and Deployment tool target environment. (*target_env*). Specify the target environment only if you set the `performWcbdDeploy` parameter to `true`. Enter `false` if you are not deploying using the WebSphere Commerce Build and Deployment tool.
wcbdSmtpUser	Yes	Provide a user ID if you are deploying using the WebSphere Commerce Build and Deployment tool and your mail SMTP server requires authentication. Specify the user IDonly if you set the `performWcbdDeploy` parameter to `true`. Otherwise, enter `false`.

Parameter	Modifiable	Value
wcbdSmtpPassword	Yes	The correct password for the wcbdSmtpUser. Required if you are deploying using the WebSphere Commerce Build and Deployment tool and your mail SMTP server requires authentication. Specify the password only if you set the performWcbdDeploy parameter to true. Otherwise, enter false.

Deploying the virtual system pattern

Provide details about the virtual system pattern in IBM PureApplication System, or the IBM PureApplication Service. Then, deploy either the IBM WebSphere Commerce Pattern V1.1.1 non-production environment for AIX for Power or IBM WebSphere Commerce Pattern V1.1.1 non-production environment for Red Hat Enterprise Linux for x86.

Procedure

1. In the IBM PureApplication System or IBM PureApplication Service user interface, click **Patterns** > **Virtual Systems**. The Virtual System Patterns pane displays a list of existing virtual system patterns.
2. Select the clone of the pattern that was created in "Updating the WebSphere Commerce virtual system pattern" on page 7. A description and general information about the virtual system pattern displays in the right pane.
3. Click the **Deploy** icon on the toolbar.
4. Provide the following information.

   Virtual System Name
   > Enter the name of the virtual system instance in which to deploy this virtual system pattern.

   Choose Environment
   > Use the defaults provided.

   Schedule deployment
   > By default this parameter is set to **Start now**. Change this setting if you want to wait to initiate deployment.

   Configure virtual parts
   > Review and, if necessary, change previously set values such as user IDs and passwords, or download URLs. To change these parameters, click **Standalone server** link. For more information about each of the parameters, see "Parameters defined for the virtual system pattern" on page 7.

5. Click **OK** to start deployment.

Results

Your virtual system is deployed with the status message, Virtual system is ready.

You now have a non-production WebSphere Commerce environment with Feature Pack 8, and Fix Pack 9 enabled.

Customizing deployed virtual system instances

You can update each virtual system instance that you deploy with your own customization in a WebSphere Commerce Build and Deployment tool package.

Procedure

1. Obtain the WebSphere Commerce Build and Deployment server deployment package.
   a. Ensure that the package is in a `.zip` file format, not under a subdirectory.
   b. Note the *target-env* name used in your server deployment package.
   c. Ensure that the files are in the root of the `.zip` file, not under a subdirectory.
   d. Ensure that any custom properties are already defined in the `deploy-target-env.properties` file, where *target-env* is the name you noted in the previous step.
   e. Note the Ant build file to run when the package is deployed. You must provide the name of the Ant build file when you deploy the image. By default, it is `wcbd-deploy.xml`, but your WebSphere Commerce Build and Deployment developers might include a custom Ant script. Do not hardcode any values into custom Ant scripts. If you do, deployment might fail.
   f. If your WebSphere Commerce Build and Deployment package sends status emails and if your SMTP server requires authentication, you must determine the SMTP user ID and password to use. You must provide this information when you deploy the image.
   g. Host the WebSphere Commerce Build and Deployment package on your file server.
      • Make note of the URL to the package. You must provide this information when you deploy the image.
      • Make note of the user ID and password required to download the file. You must provide the user ID and password when you deploy the image.
2. Obtain the third-party library `ant-contrib-1.0b3.jar` and make the file available. This library is needed to deploy using the WebSphere Commerce Build and Deployment tool.
   a. Obtain the Ant-Contrib 1.0b3 package.
   b. Extract the `ant-contrib-1.0b3.jar` file from the package.
   c. Host the `ant-contrib-1.0b3.jar` file on your file server.
   d. Make note of the URL to the file. You must provide the URL when you deploy the image.
   e. Make note of the user ID and password required to download the file. You must provide the user ID and password when you deploy the image.
3. Obtain an Apache Ant package.
   a. Host the Apache Ant package on your own server, you must obtain the package and copy it to your file server.
   b. Ensure that the package is in a compressed tar archive (either a `*.tar.gz` or `*.tgz` file).
   c. Make note of the URL to the package. You must provide the URL when you deploy the image.

d. Make note of the user ID and password required to download the package. You must provide the user ID and password when you deploy the image.

4. One instance at a time, use the following steps to update each deployed virtual system instance with your customization.

   a. Click **Instances** > **Virtual Systems**

   b. Select the instance that you want to customize.

   c. Click to expand the **Virtual Machines** folder.

   d. Click to expand the virtual machine *hostname*-**Standalone-Commerce**

   e. Under Commerce Customization, click **Execute Now**.

   f. Enter the non-root user ID and password and click **OK**

   g. Enter or update the parameters for the Commerce Customization script and click **OK**.

   After a while, return to check the status of the deployment customization. If the update is successful, your customization package is deployed. You can continue to verify your customization.

   Repeat this step for each of the deployed virtual system instances that you want to customize.

Updating deployed virtual system instances with the latest fix pack, feature pack or interim fixes

If you want, you can update your deployed virtual system instances with the latest fix pack, feature pack, or interim fixes.

Before you begin

Prepare a file server to host the files that are used by the pattern. The file server must be accessible from the deployed virtual machines. The scripts that are part of the pattern download the files from your file server. The supported file server protocols are FTP and HTTP.

For information about how to add the latest fix pack, feature pack or interim fixes to your file server, see "Setting up a file server to host the required installation files" on page 20. If you want to install multiple interim fixes together, you must place them under the same directory.

Procedure

1. Click **Instances** > **Virtual Systems**

2. Select the instance that you want to upgrade with the latest fix pack, feature pack or interim fixes.

3. Click to expand the **Virtual Machines** folder.

4. Click to expand the virtual machine *hostname*-**Standalone-Commerce**

5. Under Commerce Upgrade 1.0, click **Execute Now**.

6. Enter the IBM PureApplication System Administrator ID and password, then click **OK**.

7. Enter or update the parameters for the Commerce Upgrade script, then click **OK**.

Results

After a while, return to check the status of the Commerce upgrade. If the update is successful, your virtual system instance is updated with the latest fix pack, feature

pack, or interim fixes. You can continue to verify your customization.

Accessing the deployed system

After the virtual system is deployed, you can access the virtual system instance.

Procedure

Log in to the deployed virtual machine by providing the correct user IDs and passwords. The operating system user IDs and passwords are:

- The root user. When you log in as the root user, provide the root password that you specified during deployment.
- The non-root user that you specified during deployment and its associated password, which you also specified during deployment. By default, non-root user is named `virtuser`. The same user ID and password are used to access the following systems:
  - The WebSphere Application Server administrative console. The non-root user ID and password that you specify during deployment are used to define your WebSphere Application Server administrative user.
  - The VNC console.
  - The WebSphere Commerce administrative tools.

For more information about accessing virtual machines, see on the IBM PureApplication System information center.

Verifying deployment

Examine log information to determine if the IBM WebSphere Commerce Patterns 1.1.1 non-production environments for multiplatform instance was deployed successfully.

Procedure

- Examine the following logs:
  - The WebSphere Commerce installation script pack:
    - Log for the main process: `/tmp/installSoftware.log`
    - Logs for child processes:
      - DB2 install: `/opt/IBM/DB2/logs/db2install.history`
      - WebSphere Commerce base install: under `/opt/IBM/WebSphere/CommerceServer/logs/`
      - UPDI install: under `/opt/IBM/WebSphere/CommerceServer/UpdateInstaller/logs/install/`
      - Fix pack and interim fix install: under `/opt/IBM/WebSphere/CommerceServer/logs/update/install/`
      - Feature pack install: under `/opt/IBM/WebSphere/CommerceServer/logs/FEP7/install/`
  - The WebSphere Commerce database script pack:
    - Log for the main process: `/tmp/createDatabase.log`
  - The WebSphere Commerce application script pack:
    - Log for the main process: `/tmp/createApplication.log`
    - Logs for child processes: under `/opt/IBM/WebSphere/CommerceServer/instances/comm/logs/`
  - The WebSphere Commerce customization script pack:

- Log for the main process: `/tmp/deployCustomization.log`
  - The WebSphere Commerce upgrade script pack:
    - Log for the main process: `/tmp/upgradeApplication.log`
- If you published the Aurora store, verify that the store page displays.
  - `http://`*CommerceIHSNodeHostname*`/webapp/wcs/stores/servlet/en/aurora/`

  Where *CommerceIHSNodeHostname* is the host name of the WebSphere Commerce HTTP server node.
- If you publish Extended Sites, verify that the store pages display.
  - `http://`*CommerceIHSNodeHostname*`/webapp/wcs/stores/servlet/en/`
    `auroraesite/`
  - `http://`*CommerceIHSNodeHostname*`/webapp/wcs/stores/servlet/en/`
    `eliteesite/`

  Where *CommerceIHSNodeHostname* is the host name of the WebSphere Commerce HTTP server node.

Overview of the deployed WebSphere Commerce environment

Review the following information about the WebSphere Commerce system you deployed.

Logging into the system

For information about the IDs and passwords that are used to log on to the deployed system, see the "Accessing the deployed system" on page 16 topic.

Hardcoded IDs and passwords

Some IDs and passwords are hardcoded. These passwords and IDs are:

User	ID	Password
Database user	`db2inst1`	`eCom4iwd`
Database administrator	`db2inst1`	`eCom4iwd`
WebSphere Commerce site administrator	`virtuser`	`wcs1admin`
WebSphere Commerce Configuration Manager user ID	The ID that you specified during deployment.	The password that you specified during deployment.

Paths

Path	Directory
DB2 installation directory	`/opt/IBM/DB2`
DB2 instance directory	`/home/db2inst1/sqllib`
WebSphere Application Server installation directory	`/opt/IBM/WebSphere/AppServer`
WebSphere Commerce installation directory	`/opt/IBM/WebSphere/CommerceServer`
IBM HTTP Server directory	`/opt/IBM/HTTPServer`
Plug-in installation directory	`/opt/IBM/HTTPServer/Plugins`

Primary WebSphere Commerce artifacts

Name	Value
WebSphere Commerce instance name	`comm`
Database schema name	`db2inst1`
Database name	`comm`

WebSphere Application Server artifacts

Name	Value
Profile name	`DefaultAppSrv01`
WebSphere Application Server profile home	`/opt/IBM/WebSphere/Profiles/ DefaultAppSrv01`
Cell name	`CommCell_1`
Node name	`CommNode_1`
WebSphere Commerce application name	`WC_comm` (installed in server `server1`)
WebSphere Commerce search application name	`Solr_comm` (installed in server `solrSserver`)

WebSphere Commerce web server configuration

Name: `webserver1`

Configuration file:
    `/opt/IBM/WebSphere/CommerceServer/instances/comm/httpconf/`

Log files:
    `/opt/IBM/WebSphere/CommerceServer/instances/comm/httplogs/`

Search web server configuration

Name: `solrWebserver`

Configuration file:
    `/opt/IBM/WebSphere/CommerceServer/instances/comm/search/solr/home/
    httpconf/httpd.conf`

Log files:
    `/opt/IBM/WebSphere/CommerceServer/instances/comm/search/solr/home/
    httplogs`

What to do next

See the following tasks:
- Publishing a store archive
- Setting up the WebSphere Commerce search index

First steps after you deploy

After you deploy the pattern, use these steps to configure the non-production environment.

Procedure

Optional: Tune WebSphere commerce search to enhance performance.

Deploying production virtual environments

IBM WebSphere Commerce Patterns 1.1.1 for multiplatform provide virtualization of a multitier environment for production purposes. Deploy these virtual system patterns with IBM PureApplication System to get 64-bit virtual machines with WebSphere Commerce Enterprise Version 7, Fix Pack 8, and Feature Pack 7 installed and enabled on AIX or Red Hat Enterprise Linux. After deployment, you can use the virtualized WebSphere Commerce environment for production purposes, as if you installed and configured WebSphere Commerce in a native environment. If you have customizations in a WebSphere Commerce Build and Deployment tool server deployment package, you can have them deployed along with the newly created virtual system. If you want to apply any newer fix packs or interim fixes in the future, you can deploy them to the virtual system instance in the workload console.

Note: IBM WebSphere Commerce Patterns 1.1.1 for multiplatform does not support updating to newer feature packs.

About this task

This deployment is tested on an environment with the following minimum software levels:
* WebSphere Enterprise Commerce Version 7 Fix Pack 8
* WebSphere Commerce Version 7 Feature Pack 7
* WebSphere Application Server Hypervisor Edition 7.0.0.29
* DB2 Version 9.7.0.8
* IBM PureApplication System 1.1 W1500 (1.1.0.x or later fix pack)

Procedure

Obtaining the WebSphere Commerce virtual system pattern eAssemblies

The IBM WebSphere Commerce Patterns 1.1.1 for multiplatform are available only to WebSphere Commerce Enterprise Edition customers.

Procedure

1. Download the patterns.
   a. Open a web browser and go to the website:
   b. Search for part number `CIYA7EN` in the WebSphere Commerce Enterprise eAssemblies. The description is "IBM WebSphere Commerce Patterns 1.1.1 for multiplatform, English"
   c. Download the file and extract it to a temporary directory. The file contains seven `.zip` files:

   WC_PRODUCTION_PATTERN_V1.1.1_RHEL_X86.zip
   > This `.zip` file is IBM WebSphere Commerce Pattern V1.1.1 for Red Hat Enterprise Linux for x86.

   WC_PRODUCTION_PATTERN_V1.1.1_AIX_POWER.zip
   > This `.zip` file is IBM WebSphere Commerce Pattern V1.1.1 for AIX for Power.

WC_UNITTEST_PATTERN_V1.1.1_RHEL_X86.zip
> This `.zip` file is IBM WebSphere Commerce Pattern V1.1.1 non-production environment for Red Hat Enterprise Linux for x86.

WC_UNITTEST_PATTERN_V1.1.1_AIX_POWER.zip
> This `.zip` file is IBM WebSphere Commerce Pattern V1.1.1 non-production environment for AIX for Power.

2. Extract the patterns that you want to deploy into their own directories. The patterns must be in their own directories when you import it, later in the deployment procedure.

Preparing the base WebSphere Application Server image

You must prepare the base WebSphere Application Server image before you deploy the virtual system pattern.

Attention: These steps do not apply to AIX patterns. Proceed to the next topic.

Procedure

1. Expand the size of the file system on the WebSphere Application Server Hypervisor Edition images. Follow these instructions:
   - http://www.ibm.com/support/knowledgecenter/SSNLXH_1.0.0/com.ibm.ipas.doc/iwd/pct_clone_vi.html

   Recommended minimum sizes for the file system in the WebSphere Application Server Hypervisor Edition image:
   - Root file system (for example, `RHEL62-64.vmdk`): 12 GB
   - WebSphere Application Server binary files: 8 GB
   - WebSphere Application Server profiles: 6 GB
   - WebSphere IBM HTTP Server: 2 GB

   Avoid trouble: Make sure that your image has a unique name and version number. If there are multiple images with the same name, when you attempt to import the pattern the operation will fail. If there are multiple images with the same version number, you might find it difficult to identify them in the virtual system editor.

2. Complete the following steps in IBM PureApplication System to expand the partition and file system. These steps are not necessary if you are using the IBM PureApplication Service.
   a. Extending and capturing virtual images.
   b. Extending partition and file system sizes.
   c. Extending and capturing virtual images.

3. Make note of the following information about the virtual image.
   - Image reference number
   - Version, as specified in Step 1.
   - Image name, as specified in Step 1.

   You must provide these values in a subsequent step.

Setting up a file server to host the required installation files

The IBM WebSphere Commerce Patterns 1.1.1 for multiplatform include scripts that install DB2, WebSphere Commerce Enterprise Edition Version 7, Feature Pack 7, and Fix Pack 8. The installation files are downloaded from a file server that you set up and provide. Use the information in this topic to set up your file server.

Procedure

1. Prepare a file server to host the files that are used by the pattern. The file server must be accessible from the deployed virtual machines. The scripts that are part of the pattern download the files from your file server. The supported file server protocols are FTP, HTTP, and SCP.

2. Gather the required files. The following software installation packages are required to use IBM WebSphere Commerce Patterns 1.1.1 for multiplatform:

   DB2 Database Enterprise Edition Version 9.7.0.8, or higher Version 9.7 fix pack   Get the DB2 installation file from the DB2 technote, Download DB2 Fix Packs by version for DB2 for Linux, UNIX, and Windows

   a. Select the DB2 V9.7 Fix Pack 8, or higher.

   b. On the DB2 9.7 fix pack page, expand the section for Linux 64-bit, x86-64 on AMD64 and Intel EM64T.

   c. Select the file named "IBM Data Server Client".

   Ensure that the file is in a compressed tar archive (either a `*.tar.gz` or `*.tgz` file).

   WebSphere Commerce V7.0 Enterprise Edition
   Get the installation file from the IBM passport advantage. Search for part number CZ6CDML, then download the associated installation file. Ensure that the file is in zip format (that is, ensure that its extension is `.zip`).

   WebSphere Commerce V7.0 Feature Pack 7
   Get the installation file from the IBM passport advantagePassport advantage. Search for part number CIWY6ML, then download the associated installation file. Ensure that the file is in zip format (that is, ensure that its extension is `.zip`).

   WebSphere Commerce V7 Fix Pack 8 for Server
   Get the Fix Pack 8 for WebSphere Commerce 7.0 Server . Ensure that the file is in `.PAK` format (that is, ensure that its extension is `.pak`). For more information about the WebSphere Commerce Version 7.0.0.8 Fix Pack, see the fix pack technote.

   WebSphere Commerce V7 Update Installer 7.0.0.8
   Get the installation file. Ensure that the file is in zip format (that is, ensure that its extension is `.zip`). For more information, see the UPDI technote.

3. Copy the required files to the file server.

4. For each installation file, note the URL to the image. For example, `ftp://ftp.mycompany.com/files/db2.tgz` This information is needed in subsequent steps that are required to deploy the test pattern.

5. Note the username and password that is required to access the files on the file server. This information is also needed in subsequent steps that are required to deploy the test pattern.

Importing the virtual system pattern

Import the IBM WebSphere Commerce Pattern V1.1.1 for AIX for Power or the IBM WebSphere Commerce Pattern V1.1.1 for Red Hat Enterprise Linux for x86 into the IBM PureApplication System or the IBM PureApplication Service.

Before you begin

Obtain the virtual system pattern from Passport Advantage and extract it.

Procedure

1. Run the IBM PureApplication System or the IBM PureApplication Service
   command-line interface command to import the WebSphere Commerce
   virtualization configuration pattern.

   - For the IBM PureApplication System:

     ipas_cli_installDir\bin\pure -h *ipas_hostname* -u *ipas_admin_username* -p *ipas_admin_user_passwo*
     -f *ipas_cli_installDir*\samples\importPatterns.py -s *production_dir* -a

   - For the IBM PureApplication Service:

     ipas_cli_installDir\bin\deployer -h *ipas_hostname* -u *ipas_admin_username* -p *ipas_admin_user_pas*
     -f *ipas_cli_installDir*\samples\importPatterns.py -s *production_dir* -a

   Where

   - *ipas_cli_installDir* is the directory where you installed the IBM
     PureApplication System or IBM PureApplication Service command-line
     interface tools.
   - *ipas_hostname* is the fully qualified host name of your IBM PureApplication
     System or IBM PureApplication Service machine.
   - *ipas_admin_username* is the IBM PureApplication System or IBM
     PureApplication Service administrator user name.
   - *ipas_admin_user_password* is the IBM PureApplication System or IBM
     PureApplication Service administrator user password.
   - *production_dir* is the directory where you extracted the WebSphere Commerce
     virtualization configuration file.

   For example:

   - For the IBM PureApplication System:

     D:\pure.cli\bin\pure -h ipas.example.com -u cbadmin -p cbadmin -f D:\pure.cli\samples\importPat
     -s D:\VSP\testBuild\20130410-1158.Test -a

   - For the IBM PureApplication Service:

     D:\deployer.cli\bin\deployer -h ipas.example.com -u cbadmin -p cbadmin -f D:\pure.cli\samples\
     -s D:\VSP\testBuild\20130410-1158.Test -a

   Note: When you run the command, you might see messages on your console
   that say `Incorrect padding`. These messages do not indicate errors; they can be
   ignored.

2. Accept all license agreements. The IBM WebSphere Commerce Patterns 1.1.1 for
   multiplatform cannot be deployed until the licenses are accepted.

   a. Open the IBM PureApplication System or the IBM PureApplication Service
      workload console.
   b. Navigate to the **Patterns** > **Virtual Systems**
   c. Select the pattern that you imported.
   d. Scroll to the **License status in this pattern** section.
   e. In the **License agreement** section, click **Accept license**.
   f. View and accept all the licenses.
   g. Click **OK**.
   h. Click the **Back** button in your web browser to return to the pattern.

Results

After the command completes successfully, the IBM WebSphere Commerce production pattern is available in the IBM PureApplication System, or in the IBM PureApplication Service, along with the included script packages.

If the import fails with a message that states that the virtual image cannot be found, see Troubleshooting: Virtual system pattern fails to import.

Updating the WebSphere Commerce virtual system pattern

Update the WebSphere Commerce virtual system pattern to point at your WebSphere Application Server virtual image clone.

Procedure

1. Make note of information that you must provide about the image. In IBM PureApplication System, click **Catalog** > **Virtual Images** then select the image that you want to use as the base. Make note of the following information that you must supply in subsequent steps:
   - The image name, which is the name that you clicked to select the image
   - The image reference number
   - The version
2. Select the WebSphere Commerce virtual system pattern.
3. Click **Clone**
4. Provide a new, meaningful name for the clone.
5. Click **OK** to save the clone. Now it is ready to be deployed.
6. Click **Edit**.
7. For each of the parts, except the DB2 9.7 Enterprise part, select the version number from the list. Select the unique version number that you specified when you prepared the base WebSphere Application Server image.
8. Optional: Modify the values of frequently used parameters.
   - Edit the modifiable parameters now if you want to change them only one time, then reuse the values that you specify in every subsequent deployment. You can lock the cloned pattern to prevent modification by accident. For more information about parameters, including which are modifiable and which are not, see "Parameters defined for the virtual system pattern" on page 24.
   - If you do not want to reuse the values that you specify in every subsequent deployment, you are not required to supply the values now in the pattern editor. Instead, you (or your users) can change them in the web interface each time a system is deployed from the pattern. If you want to, you can always override the parameters at deployment time.

   Avoid trouble: Ensure that the **WebSphere administrative password** on the Standalone part is at least 8 characters long. This password is used for the WebSphere administrative user name, which defaults to `virtuser`. In the IBM PureApplication System tool, you can enter a password that is shorter than 8 characters. However, if you do so, the deployment fails because the same password is used for the WebSphere Commerce site administrator ID. The WebSphere Commerce site administrator password must be at least 8 characters long; if it is not, the WebSphere Commerce instance creation process fails. For more information about the parameters, see "Parameters defined for the virtual system pattern" on page 24.

9. Click **Done editing**.

Parameters defined for the virtual system pattern

The parameters that are used when you deploy the virtual system pattern are defined in the `patterns.json` file.

You can modify any non-fixed parameter values either when you update the virtual system pattern, or when you deploy it.

The IBM WebSphere Commerce Patterns 1.1.1 for multiplatform is made of the following component parts.
- Parameters for the WebSphere Application Server Hypervisor Edition image parts. The WebSphere Application Server Hypervisor Edition image parts are:
  - Standalone part. This part includes the following script packages:
    - Commerce Software Advanced package
    - Commerce Application Advanced package
    - Add Disk Add-on package
    - Commerce Customization package
    - Commerce Upgrade package
    - Commerce Starter Store package
    - Commerce Cluster package
  - Two Custom Nodes parts:
    - One Custom Nodes part includes the Commerce Node Search package.
    - The other Custom Nodes part includes the Commerce Node package.
  - Two IBM HTTP Server parts:
    - One IBM HTTP Server part includes the Commerce Web Server Search package.
    - The other IBM HTTP Server part includes the Commerce Web Server package.
  - Deployment Manager part. This part includes no script packages.
- Parameters for the DB2 9.7 Enterprise part. This includes the following package.
  - Commerce Database Advanced package

Parameters for the WebSphere Application Server Hypervisor Edition images

The production pattern is assembled from a deployment manager, custom nodes, IBM HTTP Servers, and a Standalone server. These are all parts that are provided by the WebSphere Application Server Hypervisor Edition.

The following table shows the parameters that are defined for the WebSphere Application Server Hypervisor parts that are included in this pattern. The table indicates which parameters can be modified and which cannot.

User interface label	Modifiable
Virtual CPUs	Yes
Memory size (MB)	Yes
Cell name	No
Node name	No
Feature packs	No

User interface label	Modifiable
Password (root)	Yes
WebSphere administrative user name	Yes
WebSphere administrative password	Yes **Avoid trouble:** Ensure that the **WebSphere administrative password** on the Standalone part is at least 8 characters long. This password is used for the WebSphere administrative user name, which defaults to `virtuser`. In the IBM PureApplication System tool, you can enter a password that is shorter than 8 characters. However, if you do so, the deployment fails because the same password is used for the WebSphere Commerce site administrator ID. The WebSphere Commerce site administrator password must be at least 8 characters long; if it is not, the WebSphere Commerce instance creation process fails.
Enable VNC	No

Parameters for the Commerce Software Advanced package

The table below explains which values must be filled out for the **Commerce Software Advanced** script package. It also explains the effect that each value has when you deploy an instance of the pattern and which values cannot be modified.

The values for the **Commerce Software Advanced** script package all depend on how you set up your file server in the "Setting up a file server to host the required installation files" on page 20.

Avoid trouble: If you plan to add capacity to your clusters by adding more nodes later, you must not change your file server. Write down the `downloadUserID`, `downloadUserPassword`, and `db2InstallerUrl` values that you use for future reference. Every time you deploy an instance, the deployment uses the same values for these three parameters. If the values for these parameters change, you have no way of providing the new information to the deployed instance. This is especially important if you are required to change your passwords at regular intervals. If you are required to change the `downloadUserPassword` value after you deploy, you must change it back to its original value if you later decide to add more nodes.

Parameter	Modifiable	Value
downloadUserID	Yes	The user ID required to access and download the installation files.
downloadUserPassword	Yes	The correct password for the user ID required to access and download the installation files.

Parameter	Modifiable	Value
db2InstallerUrl	Yes	The URL for the DB2 installation tar.gz file. For example, in the web interface, enter: *https:// myserver.mycompany.com/ software/ v10_linuxx64_client.tar.gz*
wcInstallerUrl	Yes	The URL for the WebSphere Commerce Enterprise installation .zip file. For example, in the web interface, enter: *https:// myserver.mycompany.com/ software/CZ6CDML.zip*
wcUpdiInstallerUrl	Yes	The URL for the WebSphere Commerce Update Installer installation .zip file. For example, in the web interface, enter: *https:// myserver.mycompany.com/ software/ download.updii.7007.linux.amd64.zip*
wcFixpackInstallerUrl	Yes	The URL for the WebSphere Commerce fix pack .pak file. For example, in the web interface, enter: *https:// myserver.mycompany.com/ software/7.0.0-WS- WCServer-FP008.pak*
wcFeaturePackInstallerUrl	Yes	The URL for the WebSphere Commerce Feature Pack installation .zip file. For example: For example, in the web interface, enter: *https:// myserver.mycompany.com/ software/WC_V7.0_- _FEP7_FOR_MP_ML.zip*

Parameters for the Commerce Application Advanced package

The table below explains which values must be filled out for the **Commerce Application Advanced** script package. It also explains the effect that each value has when you deploy an instance of the pattern and which values cannot be modified.

Parameter	Modifiable	Value
dbHostname	No	${*StandalonePart.hostname*}.${*StandalonePart.*
dbServerPort	No	50000
isRemoteDB	No	false

Parameter	Modifiable	Value
dbName	No	COMM
dbUserName	No	This value is a reference to a value provided elsewhere in the pattern. This value should not be changed.
dbUserPassword	No	This value is a reference to a value provided elsewhere in the pattern. This value should not be changed.
dbaName	No	This value is a reference to a value provided elsewhere in the pattern. This value should not be changed.
dbaPassword	No	This value is a reference to a value provided elsewhere in the pattern. This value should not be changed.
webserverHostname	No	
searchWebserverHostname	No	
commClusterName	No	
commServerName	No	
solrClusterName	No	
solrServerName	No	
isContentManagement	Yes.	- Enter true to create a WebSphere Commerce authoring instance. - Enter false to create a WebSphere Commerce production instance
merchantKey	Yes	A 16-digit hexadecimal number that you provide, which is used to encrypt sensitive data in the WebSphere Commerce database. For more information about the merchant key, see the section about the generation of strong cryptographic keys in the Protect stored cardholder data topic.
wcsInstanceName	Yes	Any valid WebSphere Commerce server instance name: - Cannot be longer than 12 characters, - Cannot include spaces

Parameters for the Add Disk Add-on package

The following table explains which values need to be filled out for the **Add Disk Add-on** script package. It also explains the effect that each value has when you deploy an instance of the pattern and which values cannot be modified.

For the main WebSphere Commerce storage partition:

Parameter	Modifiable	Value
DISK_SIZE_GB	Yes	*20*
FILESYSTEM_TYPE	No	ext3
MOUNT_POINT	No	/opt/IBM/WebSphere/ CommerceServer

Parameters for the Commerce Customization package

The table below explains which values must be filled out for the **Commerce Customization** script package. It also explains the effect that each value has when you deploy an instance of the pattern and which values cannot be modified.

Parameter	Modifiable	Value
performWcbdDeploy	Yes.	Controls whether the WebSphere Commerce Build and Deployment tool runs or does not run. Enter true if you have a WebSphere Commerce Build and Deployment server deployment package to deploy. Otherwise, enter false.
dbUserPassword	No	
dbaPassword	No	
downloadUserID	No	
downloadUserPassword	No	
antTgzDownloadURL	Yes	The URL for the Apache Ant tar.gz file. For example, in the web interface, enter: *https:// myserver.mycompany.com/ software/apache-ant-1.8.4-bin.tar.gz* Enter false if you are not doing a WebSphere Commerce Build and Deployment tool deployment.

Parameter	Modifiable	Value
antContribJarDownloadURL	Yes	The URL for the ant-contrib JAR file. For example, in the web interface, enter: *https:// myserver.mycompany.com/ software/ant-contrib-1.0b3.jar* Enter false if you are not doing a WebSphere Commerce Build and Deployment tool deployment.
wcbdZipDownloadURL	Yes	The URL for the WebSphere Commerce Build and Deployment tool installation .zip file. For example, in the web interface, enter: *https:// myserver.mycompany.com/ software/ mycompany.wcbd.package.zip* Specify a URL only if you set the performWcbdDeploy parameter to true. Enter false if you are not deploying using the WebSphere Commerce Build and Deployment tool.
wcbdAntBuildfile	Yes	The Ant build file in the deployment package that you want to run. For example: wcbd-deploy.xml. Specify the Ant build file only if you set the performWcbdDeploy parameter to true. Enter false if you are not deploying using the WebSphere Commerce Build and Deployment tool.
wcbdTargetEnv	Yes	The WebSphere Commerce Build and Deployment tool target environment. (*target_env*). Specify the target environment only if you set the performWcbdDeploy parameter to true. Enter false if you are not deploying using the WebSphere Commerce Build and Deployment tool.

Parameter	Modifiable	Value
wcbdSmtpUser	Yes	Provide a user ID if you are deploying using the WebSphere Commerce Build and Deployment tool and your mail SMTP server requires authentication. Specify the user ID only if you set the `performWcbdDeploy` parameter to `true`. Otherwise, enter `false`.
wcbdSmtpPassword	Yes	The correct password for the `wcbdSmtpUser`. Required if you are deploying using the WebSphere Commerce Build and Deployment tool and your mail SMTP server requires authentication. Specify the password only if you set the `performWcbdDeploy` parameter to `true`. Otherwise, enter `false`.

Parameters for the Commerce Upgrade package

The table below explains which values must be filled out for the **Commerce Upgrade** script package. It also explains the effect that each value has when you deploy an instance of the pattern and which values cannot be modified.

Parameter	Modifiable
instanceName	No
wcUpdiInstallerUrl	Yes
wcFixpackInstallerUrl	Yes
wcFeaturePackInstallerUrl	Yes
wcInterimFixUrl	Yes
wcInterimFixList	Yes

Parameters for the Commerce Starter Store package

The table below explains which values must be filled out for the **Commerce Starter Store** script package. It also explains the effect that each value has when you deploy an instance of the pattern and which values cannot be modified.

Parameter	Modifiable	Value
publishAurora	Yes	This parameter is a toggle that controls if the Aurora sample store is published and if the necessary search index preparation is completed. When you specify yes: • The store is published • The search index is created and built • Some default caching is enabled If you specify no then none of those actions occur. The default is yes.

Parameters for the Commerce Cluster package

The **Commerce Cluster** package has no parameters.

Parameters for the Commerce Node Search package

The table below explains which values must be filled out for the **Commerce Node Search** script package. It also explains the effect that each value has when you deploy an instance of the pattern and which values cannot be modified.

Parameter	Modifiable
downloadUserID	No
downloadUserPassword	No
db2InstallerUrl	No
instanceName	No
clusterName	No
serverName	No
remoteHostname	No

Parameters for the Commerce Node package

The table below explains which values must be filled out for the **Commerce Node** script package. It also explains the effect that each value has when you deploy an instance of the pattern and which values cannot be modified.

Parameter	Modifiable	Value
downloadUserID	No	This value is a reference to a value provided elsewhere in the pattern. This value should not be changed.

Parameter	Modifiable	Value
downloadUserPassword	No	This value is a reference to a value provided elsewhere in the pattern. This value should not be changed.
db2InstallerUrl	No	This value is a reference to a value provided elsewhere in the pattern. This value should not be changed.
instanceName	No	This value is a reference to a value provided elsewhere in the pattern. This value should not be changed.
clusterName	No	This value is a reference to a value provided elsewhere in the pattern. This value should not be changed.
serverName	No	This value is a reference to a value provided elsewhere in the pattern. This value should not be changed.
remoteHostname	No	This value is a reference to a value provided elsewhere in the pattern. This value should not be changed.

Parameters for the Commerce Web Server Search package

The table below explains which values must be filled out for the **Commerce Web Server Search** script package. It also explains the effect that each value has when you deploy an instance of the pattern and which values cannot be modified.

Parameter	Modifiable
instanceName	No
remoteHostname	No

Parameters for the Commerce Web Server package

The table below explains which values must be filled out for the **Commerce Web Server** script package. It also explains the effect that each value has when you deploy an instance of the pattern and which values cannot be modified.

Parameter	Modifiable	Value
instanceName	No	This value is a reference to a value provided elsewhere in the pattern. This value should not be changed.
remoteHostname	No	This value is a reference to a value provided elsewhere in the pattern. This value should not be changed.

Parameter	Modifiable	Value
remoteNodename	No	This value is a reference to a value provided elsewhere in the pattern. This value should not be changed.

Parameters for the Commerce Database Advanced package

The table below explains which values must be filled out for the **Commerce Database Advanced** script package. It also explains the effect that each value has when you deploy an instance of the pattern and which values cannot be modified.

Parameter	Modifiable	Value
dbUserName	No	This value is a reference to a value provided elsewhere in the pattern. This value should not be changed.
dbName	No	COMM
dbType	No	DB2

Deploying the virtual system pattern

Provide details about the virtual system pattern in IBM PureApplication System, or on the IBM PureApplication Service. Then, deploy either the IBM WebSphere Commerce Pattern V1.1.1 for AIX for Power or the IBM WebSphere Commerce Pattern V1.1.1 for Red Hat Enterprise Linux for x86.

Procedure

1. In the IBM PureApplication System user interface, click **Patterns** > **Virtual Systems**. The Virtual System Patterns pane displays a list of existing virtual system patterns.
2. Select the clone of the pattern that was created in "Updating the WebSphere Commerce virtual system pattern" on page 23. A description and general information about the virtual system pattern displays in the right pane.

   Note: You cannot deploy the default pattern you obtained from WebSphere Commerce directly; you must deploy a clone of the pattern. Your clone pattern uses images with large disks. The default pattern uses the default WebSphere Application Server image, with smaller disks. The deployment of the default pattern would fail due to limited disk space in the default WebSphere Application Server image.
3. Click the **Deploy** icon on the toolbar.
4. Provide the following information.

   Virtual System Name
   > Enter the name of the virtual system instance in which to deploy this virtual system pattern.

   Choose Environment
   > Use the defaults provided.

   Schedule deployment
   > By default this parameter is set to **Start now**. Change this setting if you want to wait to initiate deployment.

Configure virtual parts

Review and, if necessary, change previously set values such as user IDs and passwords, or download URLs. To change these parameters, click the link to each of the virtual parts. For example, click the **Standalone server** link. For more information about each of the parameters, see "Parameters defined for the virtual system pattern" on page 24.

Avoid trouble: If you plan to add capacity to your clusters by adding more nodes later, you must not change your file server. Write down the `downloadUserID`, `downloadUserPassword`, and `db2InstallerUrl` values that you use for future reference. Every time you deploy an instance, the deployment uses the same values for these three parameters. If the values for these parameters change, you have no way of providing the new information to the deployed instance. This is especially important if you are required to change your passwords at regular intervals. If you are required to change the `downloadUserPassword` value after you deploy, you must change it back to its original value if you later decide to add more nodes.

5. Click **OK** to start deployment.

Results

Your virtual system is deployed with the status message, `Virtual system is ready`.

You now have a production WebSphere Commerce environment with Feature Pack 8, and Fix Pack 9 enabled.

Customizing deployed virtual system instances

If you want, you can update each virtual system instance that you deploy with your own customization in a WebSphere Commerce Build and Deployment tool package.

Procedure

1. Obtain the WebSphere Commerce Build and Deployment server deployment package.
   a. Ensure that the package is in a `.zip` file format, not under a subdirectory.
   b. Note the *target-env* name used in your server deployment package.
   c. Ensure that the files are in the root of the `.zip` file, not under a subdirectory.
   d. Ensure that any custom properties are already defined in the `deploy-`*target-env*`.properties` file, where *target-env* is the name you noted in the previous step.
   e. Note the Ant build file to run when the package is deployed. You must provide the name of the Ant build file when you deploy the image. By default, it is `wcbd-deploy.xml`, but your WebSphere Commerce Build and Deployment developers might include a custom Ant script. Do not hardcode any values into custom Ant scripts. If you do, deployment might fail.
   f. If your WebSphere Commerce Build and Deployment package sends status emails and if your SMTP server requires authentication, you must determine the SMTP user ID and password to use. You must provide this information when you deploy the image.

g. Host the WebSphere Commerce Build and Deployment package on your file server.
- Make note of the URL to the package. You must provide this information when you deploy the image.
- Make note of the user ID and password required to download the file. You must provide the user ID and password when you deploy the image.

2. Obtain the third-party library `ant-contrib-1.0b3.jar` and make the file available. This library is needed to deploy using the WebSphere Commerce Build and Deployment tool.

   a. Obtain the Ant-Contrib 1.0b3 package.

   b. Extract the `ant-contrib-1.0b3.jar` file from the package.

   c. Host the `ant-contrib-1.0b3.jar` file on your file server.

   d. Make note of the URL to the file. You must provide the URL when you deploy the image.

   e. Make note of the user ID and password required to download the file. You must provide the user ID and password when you deploy the image.

3. Obtain an Apache Ant package.

   a. Host the Apache Ant package on your own server, you must obtain the package and copy it to your file server.

   b. Ensure that the package is in a compressed tar archive (either a `*.tar.gz` or `*.tgz` file).

   c. Make note of the URL to the package. You must provide the URL when you deploy the image.

   d. Make note of the user ID and password required to download the package. You must provide the user ID and password when you deploy the image.

4. One instance at a time, use the following steps to update each deployed virtual system instance with your customization.

   a. Click **Instances** > **Virtual Systems**

   b. Select the instance that you want to customize.

   c. Click to expand the **Virtual Machines** folder.

   d. Click to expand the virtual machine *hostname*-**Standalone-Commerce**

   e. Under Commerce Customization, click **Execute Now**.

   f. Enter the non-root user ID and password and click **OK**

   g. Enter or update the parameters for the Commerce Customization script and click **OK**.

   After a while, return to check the status of the deployment customization. If the update is successful, your customization package is deployed. You can continue to verify your customization.

   Repeat this step for each of the deployed virtual system instances that you want to customize.

Updating deployed instances with the latest fix pack, feature pack, or interim fixes

If you want, you can update your deployed virtual system instances with the latest fix pack, feature pack, or interim fixes.

Before you begin

Prepare a file server to host the files that are used by the pattern. The file server must be accessible from the deployed virtual machines. The scripts that are part of the pattern download the files from your file server. The supported file server protocols are FTP and HTTP.

For information about how to add the latest fix pack, feature pack or interim fixes to your file server, see "Setting up a file server to host the required installation files" on page 20. If you want to install multiple interim fixes together, you must place them under the same directory.

About this task

The following steps can be repeated multiple times. You can apply the latest fix pack, feature pack, or interim fixes together or separately.

Procedure

1. Click **Instances** > **Virtual Systems**
2. Select the instance that you want to upgrade with the latest fix pack, feature pack or interim fixes.
3. Click to expand the **Virtual Machines** folder.
4. Click to expand the virtual machine *hostname*-**Standalone-Commerce**
5. Under Commerce Upgrade 1.0, click **Execute Now**.
6. Enter the IBM PureApplication System Administrator ID and password, then click **OK**.
7. Enter or update the parameters for the Commerce Upgrade script, then click **OK**.
8. Use the WebSphere Application Server administration console to ripplestart both the Commerce and search clusters. For more information, see on the WebSphere Application Server information center.

Results

After a while, return to check the status of the Commerce upgrade. If the update is successful, your virtual system instance is updated with the latest fix pack, feature pack, or interim fixes. You can continue to verify your customization.

Accessing the deployed system

After the virtual system is deployed, you can access the virtual system instance.

Procedure

Log in to the deployed virtual machine by providing the correct user IDs and passwords. The operating system user IDs and passwords are:

- The root user. When you log in as the root user, provide the root password that you specified during deployment.
- The non-root user that you specified during deployment and its associated password, which you also specified during deployment. By default, non-root user is named `virtuser`. The same user ID and password are used to access the following systems:

- The WebSphere Application Server administrative console. The non-root user ID and password that you specify during deployment are used to define your WebSphere Application Server administrative user.
- The VNC console.
- The WebSphere Commerce administrative tools.

For more information about accessing virtual machines, see on the IBM PureApplication System information center.

Verifying deployment

Examine log information to determine if the IBM WebSphere Commerce Patterns 1.1.1 for multiplatform instance was deployed successfully.

Procedure

- Examine the following logs:
  - The WebSphere Commerce installation script pack:
    - Log for the main process: `/tmp/installSoftwareAdv.log`
    - Logs for child processes:
      - DB2 install: `/opt/IBM/DB2/logs/db2install.history`
      - WebSphere Commerce base install: under `/opt/IBM/WebSphere/CommerceServer/logs/`
      - UPDI install: under `/opt/IBM/WebSphere/CommerceServer/UpdateInstaller/logs/install/`
      - Fix pack and interim fix install: under `/opt/IBM/WebSphere/CommerceServer/logs/update/install/`
      - Feature pack install: under `/opt/IBM/WebSphere/CommerceServer/logs/FEP7/install/`
  - The WebSphere Commerce database script pack:
    - Log for the main process: `/tmp/createDatabaseAdv.log`
  - The WebSphere Commerce application script pack:
    - Log for the main process: `/tmp/createApplicationAdv.log`
    - Logs for child processes: under `/opt/IBM/WebSphere/CommerceServer/instances/comm/logs/`
  - The WebSphere Commerce customization script pack:
    - Log for the main process: `/tmp/deployCustomization.log`
  - The WebSphere Commerce upgrade script pack:
    - Log for the main process: `/tmp/upgradeApplication.log`
- If you published the Aurora store, verify that the store page displays.
  - `http://`*CommerceIHSNodeHostname*`/webapp/wcs/stores/servlet/en/aurora/`

  Where *CommerceIHSNodeHostname* is the host name of the WebSphere Commerce HTTP server node.
- If you publish Extended Sites, verify that the store pages display.
  - `http://`*CommerceIHSNodeHostname*`/webapp/wcs/stores/servlet/en/auroraesite/`
  - `http://`*CommerceIHSNodeHostname*`/webapp/wcs/stores/servlet/en/eliteesite/`

  Where *CommerceIHSNodeHostname* is the host name of the WebSphere Commerce HTTP server node.

Overview of the deployed WebSphere Commerce environment

Review the following information about the WebSphere Commerce system that you deployed.

Paths and logon IDs

Review the paths and logon IDs for the WebSphere Commerce system you deployed.

Logging into the system

For information about the IDs and passwords that are used to log on to the deployed system, see the "Accessing the deployed system" on page 36 topic.

Primary WebSphere Commerce user IDs

User	Part	ID	Password
Database user	DB2 Enterprise part and Standalone part	The instance owner ID on the DB2 Enterprise part of the pattern. That name defaults to db2inst1	The password is the instance owner password that you specified on the DB2 Enterprise part in the pattern.
Database administrator	DB2 Enterprise part and Standalone part	The instance owner ID on the DB2 Enterprise part of the pattern. That name defaults to db2inst1	The password is the instance owner password that you specified on the DB2 Enterprise part in the pattern.
WebSphere Commerce site administrator	Standalone part	The WebSphere administrative user name on the Standalone part of the pattern. That name defaults to virtuser.	The WebSphere administrative password that you provided on the Standalone part of the pattern during deployment.
WebSphere Commerce Configuration Manager user ID	Standalone part	The WebSphere Application Server administrative user on the Standalone part of the pattern that you specified during deployment.	The WebSphere Application Server administrative password that you provided on the Standalone part of the pattern during deployment.

Primary WebSphere Commerce artifacts

Name	Value
WebSphere Commerce instance name	The value is user-specified by way of the **wcsInstanceName** parameter in the Commerce Application Advanced script package on the Standalone part. For more information, see "Parameters defined for the virtual system pattern" on page 24.

Name	Value
Database schema name	The instance owner ID on the DB2 Enterprise part of the pattern. That name defaults to db2inst1
Database name	comm

WebSphere Application Server artifacts

Name	Value
WebSphere Application Server profile home	Under the /opt/IBM/WebSphere/Profiles directory
Cell name	CommCell_1
Node name	CommNode_1
WebSphere Commerce application name	WC_*instance_name* (installed in server server1), where *instance_name* is the name that you specified for the instance.
WebSphere Commerce search application name	Solr_*instance_name* (installed in server solrSserver), where *instance_name* is the name that you specified for the instance.

Paths on the Standalone Part

Path	Directory
DB2 installation directory	/opt/IBM/DB2
WebSphere Application Server installation directory	/opt/IBM/WebSphere/AppServer
WebSphere Commerce installation directory	/opt/IBM/WebSphere/CommerceServer
Directory that contains the license for the virtual system pattern	/opt/IBM/WebSphere/CommerceServer/license.vsp/
Script package or packages	/opt/IBM/VSP/Commerce

Paths on the Custom Node Part that includes the Commerce Node Search package

Path	Directory
WebSphere Application Server installation directory	/opt/IBM/WebSphere/AppServer
Script package or packages	/opt/IBM/VSP/Commerce

Paths on the Custom Node Part that includes the Commerce Node package

Path	Directory
WebSphere Application Server installation directory DMGR, STANDALONE, CustomNodes	/opt/IBM/WebSphere/AppServer
Script package or packages	Under the /opt/IBM/VSP/Commerce directory

Paths on the IBM HTTP Server part includes the Commerce Web Server Search package

Path	Directory
IBM HTTP Server directory	/opt/IBM/HTTPServer
Plug-in installation directory	/opt/IBM/HTTPServer/Plugins
Script package or packages	/opt/IBM/VSP/Commerce

Paths on the IBM HTTP Server part includes the Commerce Web Server package

Path	Directory
IBM HTTP Server directory	/opt/IBM/HTTPServer
Plug-in installation directory	/opt/IBM/HTTPServer/Plugins
Script package or packages	/opt/IBM/VSP/Commerce

Deployment Manager part

Path	Directory
WebSphere Application Server installation directory	/opt/IBM/WebSphere/AppServer

Paths on the DB2 Enterprise Part

Path	Directory
DB2 install directory	/opt/ibm/db2/V9.7
Script package or packages	/opt/IBM/VSP/Commerce

WebSphere Commerce web server configuration

Name: webserver1

Configuration file:
/opt/IBM/HTTPServer/conf/httpd.conf

Log files:
/opt/IBM/HTTPServer/logs/

Search web server configuration

Name: solrWebserver

Configuration file:
/opt/IBM/HTTPServer/conf/httpd.conf

Log files:
/opt/IBM/HTTPServer/logs/

Cloning nodes in the pattern
With IBM PureApplication System, you can clone virtual machines from a deployed pattern.

Deployment manager

Cloning the deployment manager has no impact. The Commerce pattern does not make use of the clone or integrate it into the system.

Stand-alone part

Cloning is untested and unsupported. Do not clone the stand-alone part.

Commerce custom nodes

Cloning one of the Commerce custom nodes is fully supported and recommended. When you clone a Commerce custom node, it is automatically integrated it into the Commerce cluster. Cloning a Commerce custom node is an effective way to expand the capacity of the cluster.

Search custom nodes

Cloning one of the search custom nodes is fully supported and recommended. When you clone a search custom node, it is automatically integrated it into the Commerce cluster. Cloning a search custom node is an effective way to expand the capacity of the cluster.

Commerce IBM HTTP Server nodes

Cloning one of the Commerce IHS nodes is fully supported and recommended. If you have more than one Commerce IHS node, you must have a load balancer in front of the IHS machines.

Search IBM HTTP Server nodes

Cloning one of the Search IHS nodes is fully supported and recommended. If you have more than one Search IHS node, you must have a load balancer in front of the IHS machines. In addition, you must update the `wc-search.xml` file to refer to the load balancer host name instead of the search webserver host name.

Synchronization of files to the Commerce IHS web server

The deployed WebSphere Commerce environment includes an automated process that runs to synchronize files to the Commerce IHS web server (or servers).

On the Standalone WebSphere Commerce server, both the EAR directory and the instance web directory are exported as a shared file system. When the WebSphere Commerce web server host (or hosts) starts, it runs the script `/opt/IBM/VSP/Commerce/createWebServerComm/syncStaticFiles.sh`. This script is registered under `/etc/rc.d/rc.local`. The script:

- Mounts the shared directories to similar paths under `/mnt`
- Starts a child process that synchronizes the directory `${WCInstallDir}/instances/${instanceName}/web` once every 100 minutes. This process runs in the background and continues to do the synchronizing unless it is stopped or fails.
- Starts a child process that synchronizes the directory `${PROFILE_ROOT}/DefaultAppSrv01/installedApps/${CELL_NAME}/WC_${instanceName}.ear` once every 10 minutes. This process runs in the background and continues to do the synchronizing unless it is stopped or fails.

If the synchronization stops, you can restart it by either rebooting the web server virtual machine or by running `/opt/IBM/VSP/Commerce/createWebServerComm/syncStaticFiles.sh` as root. If you want to force a synchronization, you can restart the web server virtual machine.

The results of the synchronization are logged in `/opt/IBM/VSP/Commerce/logs/syncWebServerFiles.log`.

Cache replication

The IBM WebSphere Commerce Patterns 1.1.1 for multiplatform creates an internal replication domain for your application and enables cache replication in each cluster member.

- For information about cache replication definition and configuration, see .
- For information about enabling cache replication see the following topics in the WebSphere Commerce information center:
    - Clustering with vertical cluster members
    - Clustering with horizontal cluster members

Commerce production pattern enables cache replication for commerce cluster, and replication type is recommended "Not Shared" which realizes cache invalidations among multiple commerce cluster members.

Semi-automated search index replication

The production pattern implements a unique approach to search index replication that relies on file synchronization utilities and shared file systems.

The search index replication is handled in a manner very similar to the IBM HTTP Server file synchronization described in "Synchronization of files to the Commerce IHS web server" on page 41.

The search index is built on the primary WebSphere Commerce and Search node, which is on the Standalone part of the virtual system pattern. The file system that contains the index is shared with other nodes in the deployment by way of an NFS export. The search nodes in the pattern are subordinate nodes. They mount the NFS share to a local path under /mnt.

The following script is registered to run at startup: /opt/IBM/VSP/Commerce/ CreateNodeSearch/mountDirSolr.sh. The script runs a scheduled job that uses **rsync** to pull changed index files from the master search node to the local subordinate node. The scheduled job sleeps for 6000 seconds between runs.

Restart of the WebSphere Commerce node

Each of the virtual machines in the deployed pattern is configured to automatically start all services that are necessary for WebSphere Commerce if and when the system is rebooted.

If you restart one or more of the virtual machines in a deployed instance of the pattern, all of the services that are required for the WebSphere Commerce application to run are started automatically.

First steps after you deploy

After you deploy the pattern, use these steps to configure the production environment.

Procedure

1. If you chose not to publish the Aurora store or the Extended Sites store archive during the deployment, see the following tasks:
    - Publishing a store archive
    - Setting up the WebSphere Commerce search index
2. Tune WebSphere commerce search to enhance performance.

Index

V

virtual system pattern
  IBM PureApplication System
    deploying a non-production
      pattern   3
    deploying a production
      pattern   19
  non-production pattern
    accessing the deployed system   16
    customizing deployed
      instances   14
    first steps after deploying   18
    non-root user   16
    overview of deployed
      environment   17

virtual system pattern *(continued)*
  non-production pattern *(continued)*
    overview of deploying   3
    parameters   8
    root user   16
    updating the pattern   7
  production pattern
    accessing the deployed system   36
    cache replication   42
    cloning nodes   41
    customizing deployed
      instances   34
    first steps after deploying   42
    hosting installation files   21
    IBM HTTP server   41
    IDs   38, 42

virtual system pattern *(continued)*
  production pattern *(continued)*
    non-root user   36
    overview of deployed
      environment   38
    overview of deploying   19
    parameters   24
    paths   38
    restarting nodes   42
    root user   36
    search index replication   42
    setting up a file server   21
    synchronizing files   41
    updating the pattern   23