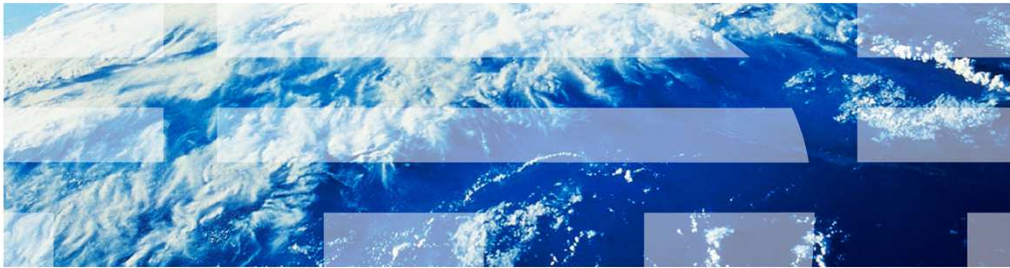

WebSphere Commerce V7 Feature Pack 6

Virtualization sample pattern



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This presentation provides an overview of the WebSphere Commerce virtualization sample pattern.

Table of contents

- Background
 - IBM Workload Deployer
 - IBM PureApplication™ System
 - Virtual appliance, virtual system pattern and virtual application pattern
- WebSphere Commerce virtualization sample pattern
 - Pattern and details
 - Documentation and download links
 - Troubleshooting tips
- Deployment example

This presentation begins with the background of WebSphere Commerce virtualization. In particular, IBM Workload Deployer and IBM PureApplication Systems are reviewed. Three types of content for deployment are also described. These are virtual appliance, virtual system pattern and virtual application pattern. Next, the presentation introduces the WebSphere Commerce virtualization sample pattern. Documentation, download links and troubleshooting tips are provided. This presentation concludes with a deployment example.

Background

This section provides some background on IBM Workload Deployer and IBM PureApplication Systems.

IBM Workload Deployer

1. An appliance from IBM...

Includes

- Hardware
- IBM Workload Deployer function
- Hypervisor Edition images
- Best practice topology patterns
- Web application workload pattern

Users and Groups OVF images Patterns and Scripts

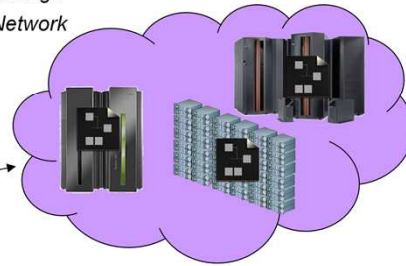


Web 2.0 UI, CLI, and REST APIs

2. ...that manages your on-premise cloud...

Bring your own Enterprise cloud

- Hypervisors (VMware, PowerVM®, zVM)
- Storage
- Network



3. ... comprising Virtual Systems

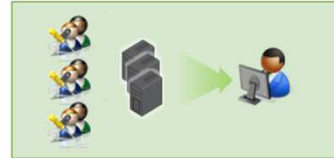
- Customize and extend images and patterns for your applications
- Dispense and run in the cloud
- Life-cycle management, optimization, license tracking



IBM PureApplication System

- **Complete, ready-to-go systems**
 - Pre-optimized for highest workload performance
 - Virtualized across the stack for efficiency
 - Resilient, secure, scalable Infrastructure
- **Simple delivery**
 - Arrives pre-integrated
 - Single point of management
 - Easy to integrate with existing environment
- **Ready for cloud**
 - Integrated middleware
 - Elastic runtimes and data
 - Application-aware workload management

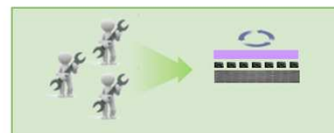
Deploy
3-tier web application deployment
From weeks to minutes



Manage
Separated versus Integrated



Optimize
Manual Many parameters **Pre-optimized** Workload patterns



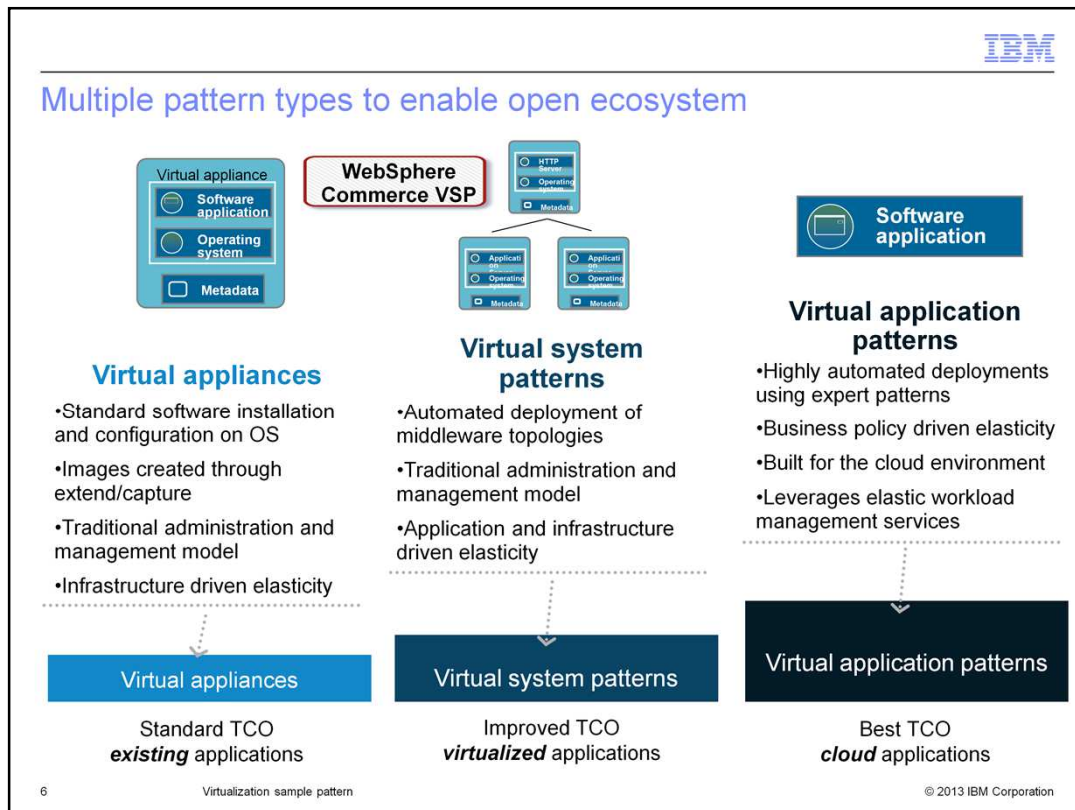
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Virtualization sample pattern

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If you are just getting started with a cloud environment, IBM PureApplication System is the recommended starting point. The PureApplication System has integrated hardware and software which combines virtualized workloads and scalable infrastructure. Included are the middleware such as support for data and runtime. Also included are the deployment and management capabilities that streamline and speed these activities, making them more efficient. From a hardware perspective, compute, storage and interconnect are included.

Multiple pattern types to enable open ecosystem



There are three types of content for IBM Workload Deployer and IBM PureApplication System: virtual appliance, virtual system pattern and virtual application pattern. WebSphere Commerce achieves virtualization with virtual system pattern.

Sample pattern

This section introduces the WebSphere Commerce virtualization sample pattern.

WebSphere Commerce virtualization sample pattern

- Sample pattern released late 2012
- Sample for you to create your own patterns
- Virtual system pattern with script packages on stand-alone server
- Single tier topology to be used directly for non-production
- Custom code can be deployed when creating the instance

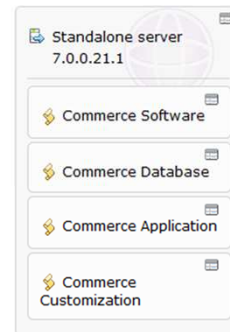
The screenshot displays the IBM Workload Deployer interface. On the left, a 'Standalone server' pattern is shown with version '7.0.0.21.1'. Below the pattern name are four components: 'Commerce Software', 'Commerce Database', 'Commerce Application', and 'Commerce Customization'. On the right, a 'Virtual machines' table shows one instance named 'iwctest76-Standalone-Commerce S' with 2% CPU usage and 12% memory usage. Below the table, the 'General information' section provides details: Created on: Jul 27, 2012 8:19:28 AM; From virtual image: WebSphere Application Server 7.0.0.21 - 45GB; Part name: Standalone; Current status: Virtual machine has been started; Updated on: Jul 27, 2012 4:10:52 PM; On hypervisor: idptest04; In cloud group: siteIT; Registered as: iwctest76-Standalone-Commerce S; Stored on: idptest04-ds3; In virtual application: None provided. There is also a warning for 'IBM products (with license count for isolated usage)' and a 'Hardware and network' section showing 'Virtual CPU count: 1'.

The WebSphere Commerce sample test pattern for IBM Workload Deployer was released in November 2012. The pattern was refreshed in December 2012 to support IBM PureApplication System. The sample test pattern is available for you to use it as a sample to create your own patterns. It can also be used directly for non-production purposes such as functional testing and demonstration.

The virtual system pattern uses a set of script packages to augment the standard WebSphere Application Server Hypervisor Edition to create a single-tier stand-alone server for non-production use. Custom code can optionally be deployed when the virtual system is created.

Virtualization sample pattern stack

- Single tier, IBM stack
 - WebSphere Application Server 7.0.0.25 with IBM HTTP Server V7
 - DB2® 9.7 FP5
 - WebSphere Commerce V7 with fix pack 6 and Feature Pack 5
 - With customizations deployed
- Deploy on Red Hat Enterprise Linux®



The WebSphere Commerce virtualization sample pattern can be deployed as a single tier instance with an IBM software stack. The stack includes WebSphere Application Server 7.0.0.25 with IBM HTTP Server 7.0.0.25, DB2 9.7 fix pack 5 and WebSphere Commerce 7.0 fix pack 6 and feature pack 5. Optionally, customization to the WebSphere Commerce application can be deployed together with the virtual system instance. The sample pattern can be deployed on Red Hat Enterprise Linux.

Deployment highlights

- Deployment steps
 - Deploys a WebSphere Application Server Hypervisor Edition image
 - Downloads and installs binaries
 - Creates the WebSphere Commerce database
 - Creates WebSphere Commerce instance and enables features
 - Optionally deploys a WebSphere Commerce Build and Deployment tool customization package
- Results
 - The WebSphere Commerce and WebSphere Commerce Search applications are installed
 - The WebSphere Commerce and WebSphere Commerce Search web servers are configured
 - All servers running and ready

The sample test pattern performs several steps when it is deployed by IBM Workload Deployer or IBM PureApplication System. First, the pattern deploys a WebSphere Application Server Hypervisor Edition image. This image is included in IBM PureApplication System. Next it downloads and installs the software binaries, including DB2, WebSphere Commerce, WebSphere Commerce Update Installer, WebSphere Commerce fix pack, interim fixes, and the WebSphere Commerce feature pack. Once the installations are complete, the WebSphere Commerce database and instance are created and feature enablement is run. You have the option to include a WebSphere Commerce Build and Deployment tool customization package when the system is created.

When the deployment process is complete, the WebSphere Commerce and WebSphere Commerce Search applications are installed. The WebSphere Commerce web servers for both applications are configured. All servers are running and ready.

Documentation and download link

- The Sample IBM WebSphere Commerce V7.0 Pattern for IBM Workload Deployer and IBM PureApplication System is available here:
 - <https://www14.software.ibm.com/webapp/iwm/web/preLogin.do?source=swerpws-wcpattern>
- The WebSphere Commerce Information Center has a new topic on virtualization
 - Installing > Installing WebSphere Commerce > Deploying WebSphere Commerce environments using IBM Workload Deployer
 - http://pic.dhe.ibm.com/infocenter/wchelp/v7r0m0/topic/com.ibm.commerce.install.doc/tasks/tiq_vsp_IWD.htm
- IBM PureApplication System
 - http://www.ibm.com/ibm/puresystems/us/en/pf_pureapplication.html
- IBM Workload Deployer
 - <http://www-01.ibm.com/software/webservers/workload-deployer/>

This slide provides the link to download the sample pattern. You can find installation instructions in the WebSphere Commerce Information Center. More information for IBM PureApplication System and IBM Workload Deployer can be found using the links on the slide.

Troubleshooting tips



- Typical user interfaces are available
 - CLI through SSH, GUI through VNC, ISC through browser
- All the must-gathers in standard places
- Virtualization specific logs
 - /tmp/installSoftware.log
 - /tmp/createDatabase.log
 - /tmp/createApplication.log
 - /tmp/deployCustomization.log
- Sample pattern is not a hypervisor image
 - Script packages to augment WebSphere Application Server Hypervisor Edition
- Sample pattern is not a production ready pattern
 - Only intended for test purposes
- Sample pattern is not included in the catalog on IBM PureSystems Centre
 - It can be found on the IBM Downloads site using the links in the Information Center

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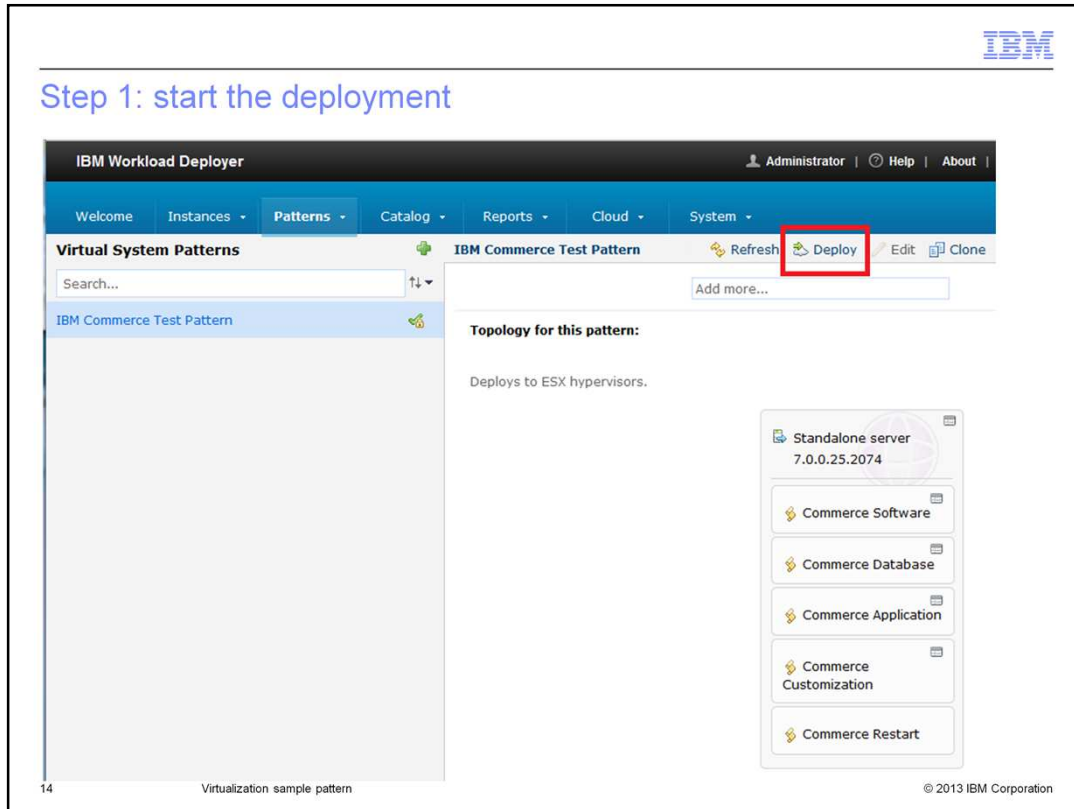
Virtualization sample pattern

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Once the pattern is deployed, all the typical user interfaces are available. For example, command-line interface through secure shell, graphic user interface through virtual network computing and integrated solution console through a web browser. The must-gathers are in the same locations as with a manual deployment. There are also four virtualization-specific log files. It is important to note that the sample pattern is not a hypervisor image. It uses script packages to augment the WebSphere Application Server Hypervisor Edition image. The sample pattern is intended for test purposes only. It should not be used for a production deployment. You can locate the sample pattern on the IBM Downloads site using the links provided in the Information Center. Links were also provided on the previous slide. The sample pattern is not included in the catalog on IBM PureSystems Centre.

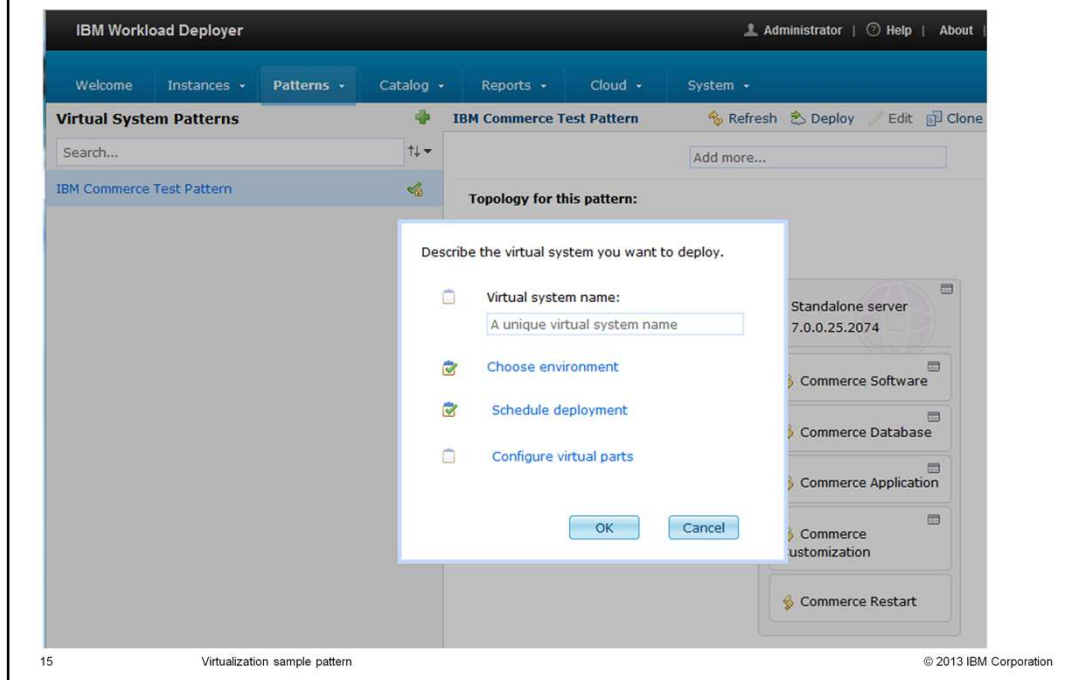
Deployment example

This section demonstrates a sample deployment using the virtualization sample pattern.



It is easy to deploy the WebSphere Commerce sample test pattern. To begin, select the Deploy button in the workload console.

Step 2: provide a virtual system name



The workload console will ask you to provide some required input, for example the name of the virtual system instance.

Step 3a: provide application server settings

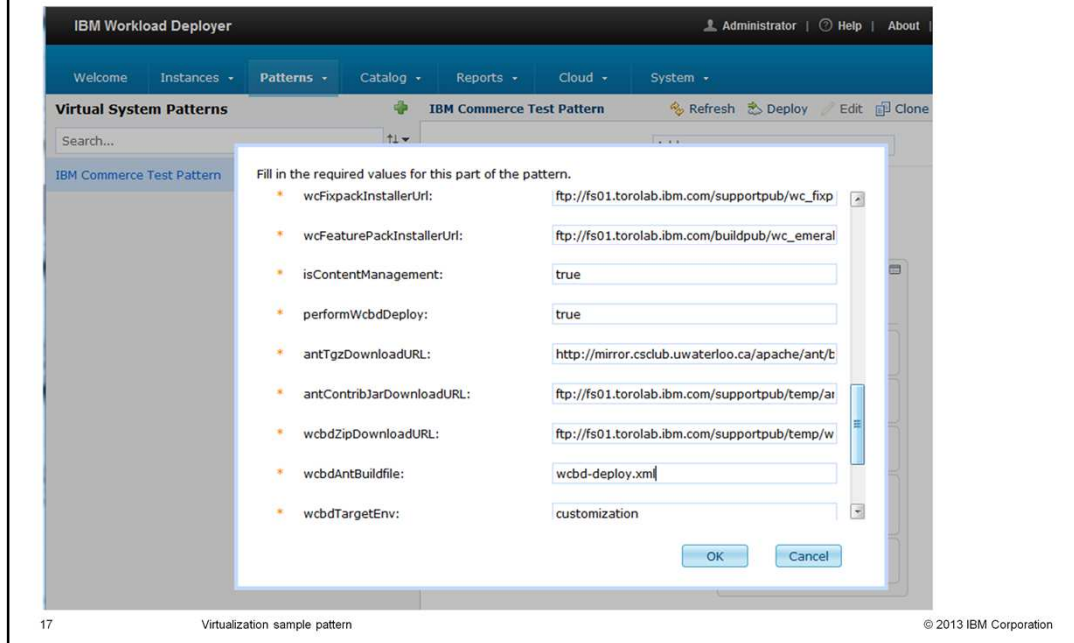
The screenshot shows the IBM Workload Deployer interface. A modal dialog box is open, titled "Fill in the required values for this part of the pattern." The dialog contains the following fields and values:

Field	Value
Name:	StandalonePart
* Virtual CPUs:	2
* Memory size (MB):	6144
* Reserve physical CPUs:	False
* Reserve physical memory:	False
* Password (root):	*****
* Verify password:	*****
* WebSphere administrative user name:	virtuser

At the bottom of the dialog are "OK" and "Cancel" buttons. The background interface shows the "Virtual System Patterns" section with "IBM Commerce Test Pattern" selected. The footer of the screenshot includes the number "16", the text "Virtualization sample pattern", and the copyright notice "© 2013 IBM Corporation".

There are some required values for the virtual part of the WebSphere Application Server stand-alone node. For example the password of the root user. You can also change the default values of optional input.

Step 3b: specify customization packages (optional)



If you have customization packages to be deployed, make sure that you provide the correct values. Otherwise, ignore these input fields. Once all the properties are set, select OK to start the deployment.

Step 4: start using your new virtual machine

The screenshot shows the IBM Workload Deployer interface. The main content area displays details for instance 121022b. The 'Current status' is 'Queued', and the 'Virtual machines' section indicates '1 total - 1 inactive'. The interface includes a navigation menu at the top and a sidebar on the left.

Property	Value
Created on:	Oct 22, 2012 4:53:02 PM
From pattern:	IBM Commerce Test Pattern
Using Environment profile:	None provided
Current status:	Queued
Updated on:	Oct 22, 2012 4:53:04 PM
Access granted to:	cbadmin [owner]
Snapshot:	(none)
History	Deployment has been queued
Virtual machines	1 total - 1 inactive
Comments	There are no comments yet

Once the pattern deployment is complete, the deployed instance can be accessed in the workload console. You can use the virtual machine just as you normally do with a physical machine installed and configured with the WebSphere Commerce deployment utilities.

Summary

- Overview
- WebSphere Commerce virtualization sample pattern
- Deployment example

This presentation began with the background of WebSphere Commerce virtualization. In particular, IBM Workload Deployer and IBM PureApplication Systems were reviewed along with the types of content that can be deployed. Next, the presentation introduced the WebSphere Commerce virtualization sample pattern. Documentation, download links and troubleshooting tips were provided. The presentation concluded with a deployment example.

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