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WebSphere® Commerce V6

Messaging and other WebSphere Commerce components



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Welcome to this presentation on WebSphere Commerce. This presentation discusses messaging, e-mail account set-up and other WebSphere Commerce components.

Unit objectives

- WebSphere Commerce messages
- Configure e-mail activity accounts
- Enable and disable WebSphere Commerce components
- Schedule jobs

This presentation discusses how to interpret WebSphere Commerce messages, configure e-mail activity accounts, enable and disable WebSphere Commerce components, and schedule jobs.

WebSphere Commerce messages

- Messaging system supports communication with external systems and notification of events to users
- Outbound messaging system
 - ▶ Supports multiple transports
 - E-mail, file, HTML, WebSphere InterChange Server
 - ▶ Supports different device formats
 - Plain text, HTML, i-mode, XML
 - ▶ Provides a number of outbound message types
- Inbound messaging system
 - ▶ Adaptors receive messages from different transports
 - WebSphere MQ Adaptor receives XML messages from MQ
 - Program Adaptor receives inbound XML and SOAP messages over HTTP
 - ▶ Adaptors run commands and return responses

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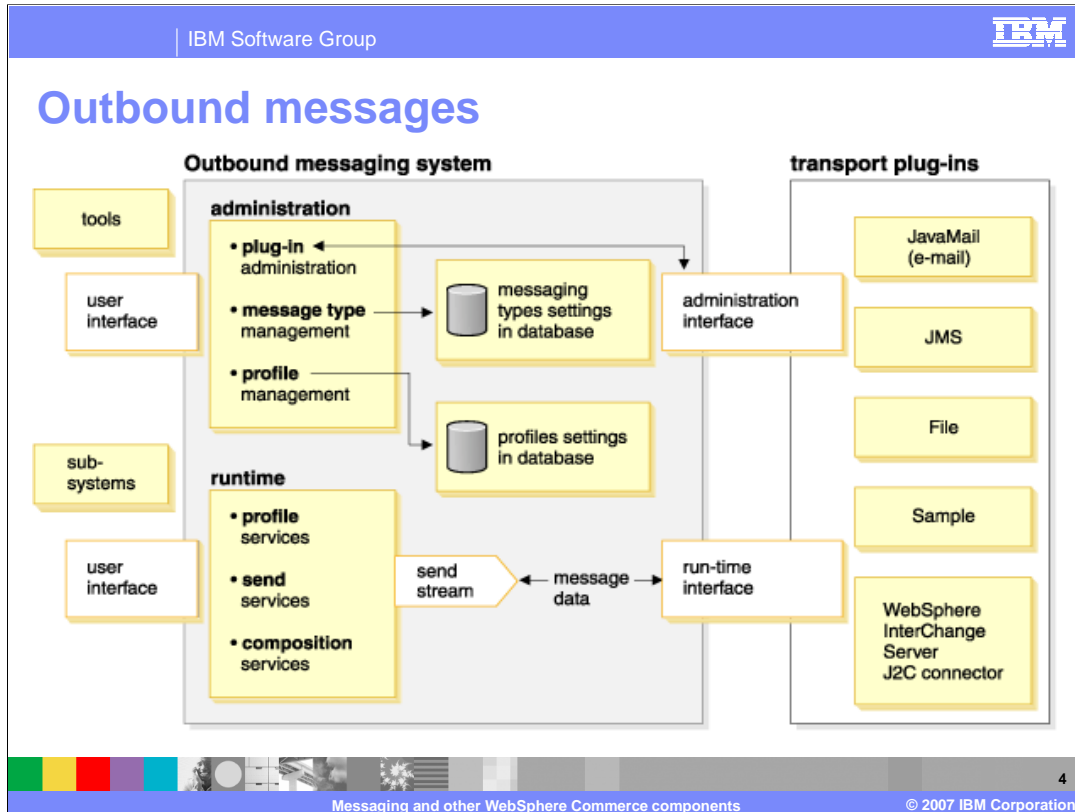
Messaging and other WebSphere Commerce components

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The WebSphere Commerce messaging system allows you to manage all aspects of defining and sending messages generated within WebSphere Commerce. It allows you to control the manner in which administrators, customers, back-end, and fulfillment center systems are notified of various events, such as customer orders or system errors.

Outbound messages are typically used to notify users or other applications of changes in the system such as an error, a new order, or a reset password. WebSphere Commerce supports multiple standard transport types, but additional transports can be created with the Java 2 Enterprise Edition Connector Architecture.

Inbound messages are used to update the WebSphere Commerce system with data from an external application, for instance, an inventory update or new user creation.



To configure the outbound messaging system, use the WebSphere Commerce Administration Console. The messaging system can send messages using transports such as e-mail or file. For e-mail the supported outbound protocol is SMTP. The message encoding depends on your preferred language and the store and site default language. Optionally, you can configure the messaging system to send messages to a back-end or fulfillment center system using WebSphere MQ.

The outbound messaging system provides a highly customizable messaging environment. Some of the WebSphere Commerce messages use the message composition services. Through the use of JavaServer Page files, the composition services generate a message before it is sent through the transport. Multiple message transmissions support allows you to send a single message through more than one transport.

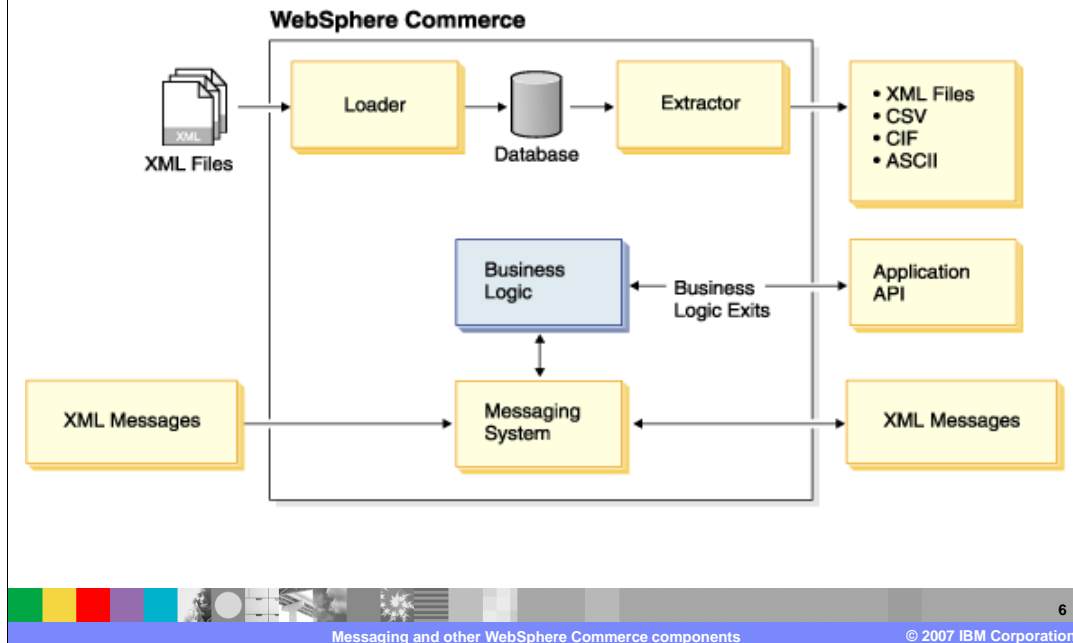
List of outbound messages

Message name in Administration Console	Message type name in MSGTYPE table
Message to notify approvers	ApproversNotify
A broadcast message	BroadcastMessage
Description of an error condition....	ErrorMessage
An invoice message	Invoice
Message for notifying merchant of an order.	MerchantOrderNotify
Notification message for canceled order	OrderCancel
Notification of approved reseller registration	ResellerRegistrationApprovedNotify
Outbound message for WebSphere Commerce XML create	OrderCreateXMLFormat

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There are a large number of pre-defined outbound messages. The list provides some common ones. There are also several pre-defined inbound messages designed for common integration scenarios.

Messages and integration



In WebSphere Commerce business logic is enabled for integration and built-in adapters and interfaces are provided for common integration points. The WebSphere Commerce integration solution leverages integration standards by using various IBM connectivity solutions.

WebSphere Commerce can integrate with customers by multiple channels such as back-end systems within the enterprise, partners and suppliers.

Inbound messages are used to run commands in WebSphere Commerce based on messages coming from back-end systems. Outbound messages can be generated by the outbound messaging system in order to update back-end systems with events that have taken place, such as a new customer order.

This diagram shows WebSphere Commerce components and utilities used to communicate with external systems. For example, XML files can be used as input by the massload utility which uses the files to populate the WebSphere Commerce database. The Extractor utility can be used to extract data from the WebSphere Commerce database into various file formats. XML messages are also used as input to the Messaging system, based on the content of the XML messages the Messaging system can perform business logic or send messages to an external system.

Business object document

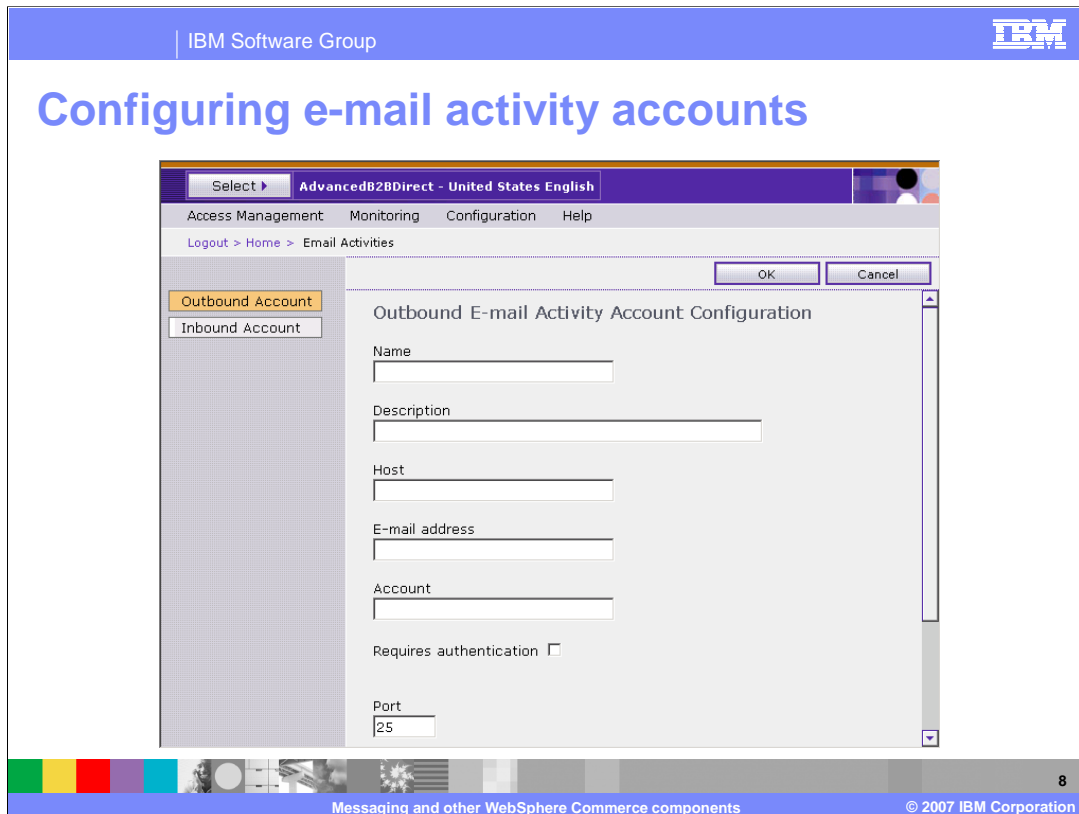
- Business messages based on an open standard
- Independent of the communication mechanism
- XML format makes integration easy

```
<UpdateGiftRegistryBOD storeId="10001" service="updateGiftRegistry" lang="en-US"
  revision="1.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:noNamespaceSchemaLocation="../../../xsd/bods/UpdateGiftRegistryBOD.xsd">
  <DataArea>
    <SyncVerb>
      <DefaultAction>add</DefaultAction>
    </SyncVerb>
    <Nouns>
      <GiftRegistryVO>
        <!-- Contents of gift registry that is to be created is omitted -->
      </GiftRegistryVO>
    </Nouns>
  </DataArea>
</UpdateGiftRegistryBOD>
```

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Business object documents are an open standard message architecture developed by the open applications group. They are most commonly sent in a SOAP message over HTTP but are not required to be transported in that way.

These types of messages are used for the integration of IBM Gift Center and IBM Sales Center applications.



E-mail activities allow you to deliver news and promotions to customers using e-mail. This allows you to reach customers who may not have visited your site in some time, or to keep regular customers up to date regarding upcoming events or products. Optionally, you may associate an e-mail activity with a campaign, which helps organize the gathered statistics into more meaningful reports.

E-mail activities are created using the e-mail activity dialog in the WebSphere Commerce Accelerator. When creating an e-mail activity, you must select the template upon which it is based. This template can be defined either before creating the e-mail activity, or as part of the e-mail activity creation. However, before e-mail activity creation, your site administrator must configure the e-mail accounts used by the e-mail activity system.

E-mail activities send a single dynamic e-mail message to multiple recipients. An activity is not sent as a single e-mail with multiple target addresses, but rather as an e-mail sent multiple times, once each to every selected target e-mail address. Sending e-mail activities like this eliminates the ability of a recipient to see the e-mail addresses of the other recipients, and should reduce privacy concerns.

The screenshot shows the IBM Site Administration Console interface for configuring transports. The page title is "Configuring transports". The navigation bar includes "Security", "Monitoring", "Configuration", "Store Archives", and "Help". The breadcrumb trail is "Logout > Home > Transports". The main heading is "Transport Configuration". Below the heading, there is a "Page Number" field set to "1" and a "Go" button. A summary indicates "5 items" and provides navigation links: "« First | 1 of 1 | Last »".

<input type="checkbox"/>	Name	Description	Transport Status
<input type="checkbox"/>	E-mail	E-mail sender	Active
<input type="checkbox"/>	File	File Writer	Inactive
<input type="checkbox"/>	WebSphere MQ	WebSphere MQ	Inactive
<input type="checkbox"/>	WebSphere InterChange Server	WebSphere InterChange Server	Inactive
<input type="checkbox"/>	Sample adapter	Sample adapter	Inactive

On the right side of the table, there are three buttons: "Add", "Configure", and "Change Status".

The footer of the page contains the text "Messaging and other WebSphere Commerce components" and "© 2007 IBM Corporation".

Use Transport Configuration to define the transports for the site or store. You can configure transports from the WebSphere Commerce Site Administration Console. Select **Add** to add a supported transport if it is not listed, or use **Configure** to change the settings for an existing transport. You can also activate or deactivate transports with the **Change Status** button. The parameters that you can modify vary for each transport, for example the e-mail transport allows you to specify the host, port, and protocol used to send messages.

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Configuring message types

Select ▾ **Site Administration Console**

Security Monitoring Configuration Store Archives Help

Logout > Home > Message Types

Message Type Configuration

25 items Page Number

« First | 1 of 2 | Next » | Last »

<input type="checkbox"/>	Message Type	Severity Range	Transport	Transport Status
<input type="checkbox"/>	Description of an error condition occurring in WebSphere Commerce	0 - 0	E-mail	Active
<input type="checkbox"/>	Message for an authorized order	0 - 0	E-mail	Active
<input type="checkbox"/>	Message for a received order	0 - 0	E-mail	Active
<input type="checkbox"/>	Message for a rejected order	0 - 0	E-mail	Active
<input type="checkbox"/>	Message for notifying the merchant of an order	0 - 0	E-mail	Active
<input type="checkbox"/>	Notification message for a canceled order	0 - 0	E-mail	Active
<input type="checkbox"/>	Notification message for password reset	0 - 0	E-mail	Active
<input type="checkbox"/>	A broadcast message	0 - 0	E-mail	Active

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You can configure transports from the WebSphere Commerce Site Administration Console. Use the Message Type configuration tool to define the message types used by a store. From this screen you can add new message types or change existing ones. When configuring message types, you can specify the message type, transport, and device format, along with other parameters.

Job types

- **Regular job**
 - ▶ Command designed to run automatically at a specified start time and interval
 - ▶ Scheduled by site administrators only
- **Store level job**
 - ▶ Scheduled by site and store administrators
- **Broadcast job**
 - ▶ Runs immediately, one time, on all clones in a cluster
 - ▶ Scheduled by site administrators only

Site administrators can schedule any command in the system to run. Store administrators can only select from a predefined list of commands. These commands implement a task command that checks to see if the job needs to run, so that processing on the server is minimized.

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Job status

Select ▾ Site Administration Console

Security Monitoring Configuration Store Archives Help

Logout > Home > Scheduler

Scheduler Status Display

Page Number

462 items « First | 1 of 31 | Next » | Last »

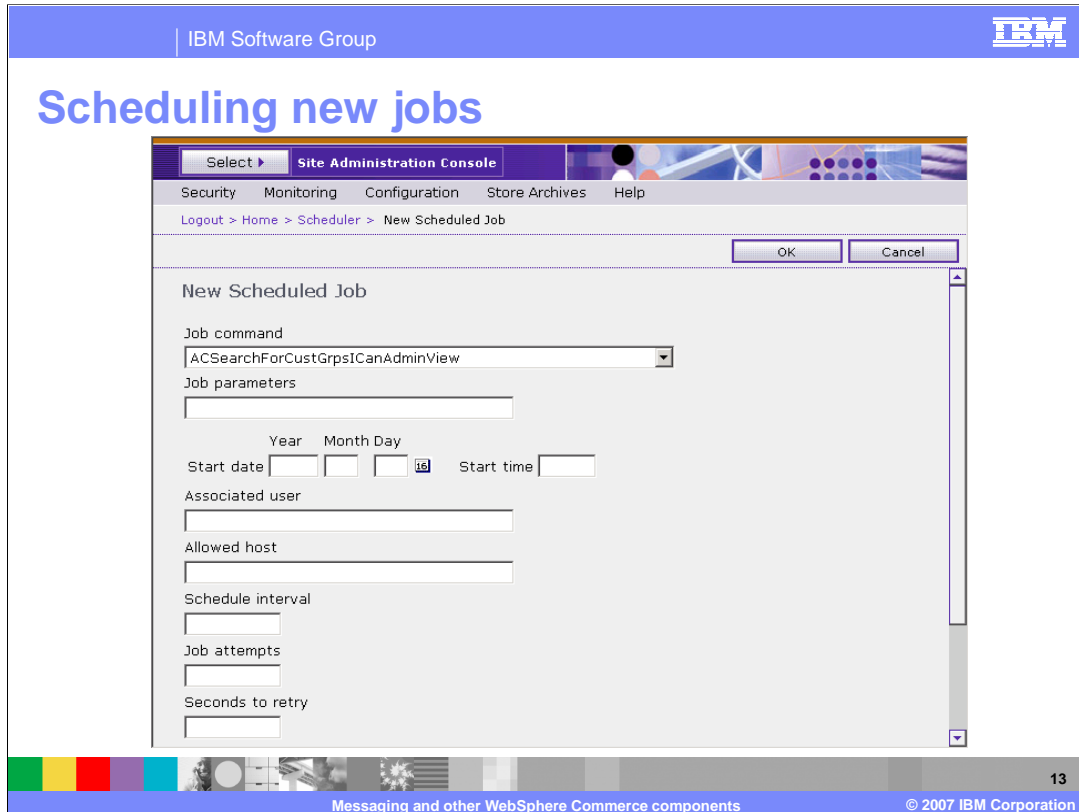
Date range: 7/24/06 12:00 AM

<input type="checkbox"/>	Command	State	Status	Start date	Finished	Application Type
<input type="checkbox"/>	RaiseECEvent	Complete	Successful	7/24/06 12:00 AM	7/24/06 12:00 AM	
<input type="checkbox"/>	CleanECEvent	Complete	Successful	7/24/06 12:00 AM	7/24/06 12:00 AM	
<input type="checkbox"/>	ExperimentCheckExpiry	Complete	Successful	7/24/06 12:00 AM	7/24/06 12:00 AM	
<input type="checkbox"/>	ScheduledContentManagedFileEARUpdate	Complete	Successful	7/24/06 12:00 AM	7/24/06 12:00 AM	
<input type="checkbox"/>	DynaCacheInvalidation	Complete	Successful	7/24/06 12:00 AM	7/24/06 12:00 AM	
<input type="checkbox"/>	SendTransactedMsg	Complete	Successful	7/24/06 12:00 AM	7/24/06 12:00 AM	
<input type="checkbox"/>	PaySynchronizePM	Complete	Successful	7/24/06 12:00 AM	7/24/06 12:00 AM	
<input type="checkbox"/>	RaiseECEvent	Complete	Successful	7/24/06 12:05 AM	7/24/06 12:05 AM	

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The Scheduler Status display page in the Site Administration Console shows information about scheduled jobs, allows you to create, change, and delete jobs, and removing completed job status records. This page functions both as a means to schedule and monitor scheduled jobs, and a way to review jobs that have already run.



To create a new scheduled job, select the command from the drop-down list and enter the appropriate command parameters and job options such as start date, interval, attempts, and priority. If the start date is in the past, the job will start immediately. If interval is not specified the job only runs once.

In the Store Administration Console, the drop-down list will only include the permitted store level jobs. In the Site Administration Console, the drop down list will display all controller commands in the system.

Recommended parameters for store jobs

Scheduled job name	Recommended start time	Recommended interval (seconds)	Recommended priority
BalancePayment	00:00	86400	1
PayCleanup	00:00	86400	1
ReturnCreditAndCloseScan	00:00	86400	1
ProcessBackorders	00:00	43200	8
RAREallocate	00:00	86400	1
ReleaseExpiredAllocations	00:00	3600	8
ReleaseToFulfillment	00:00	600	10

After publishing a store, scheduled jobs need to be created for the store depending on the features that the store uses. Stores which do not support ATP inventory should have BalancePayment, PayCleanup, and ReturnCreditAndCloseScan jobs.

Features requiring scheduled jobs

Feature	Commands	Notes
Payment	PaySynchronizePM	Enabled by default every 5 minutes
	PaymentSummaryGenerate	Store level job
	BalancePayment	Store level job
	PayCleanup	Store level job
Returns	ReturnCreditAndCloseScan	Store level job
Inventory	ProcessBackorders	Store level job
	RAReallocate	Store level job
	ReleaseExpiredAllocations	Store level job
	ReleaseToFulfillment	Store level job
Auctions		7 jobs
RFQ		6 jobs
Coupons	SchedCoupon	Enabled by default twice each day
Messaging	SendTransactedMsg	Enabled by default every 5 minutes
Security	SecurityCheck	Enabled by default every 30 days

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A number of features in WebSphere Commerce use scheduled jobs. When a WebSphere Commerce database is created, some scheduler jobs are created and activated by default.

The PaySynchronizePM job synchronizes payment information with WebSphere Payment Manager. The SendTransactedMsg job delivers messages. The SecurityCheck job checks system security and the SchedCoupon job processes expired coupons.

In addition to these jobs, jobs for auctions and request for quotes (RFQs) are defined but not activated.

Configuring auction and RFQ jobs

- Auction jobs
 - ▶ Open configuration manager
 - ▶ Select the auctions component
 - ▶ Select enable
 - ▶ Enter the SMTP server name and reply e-mail address
 - ▶ Click apply
 - SQL is run to update the database
- RFQ jobs
 - ▶ Run this SQL script to enable RFQ jobs
 - <WC_HOME>\schema\db2\wcs.Enable_rfq.Sql
 - ▶ Run this SQL script to disable RFQ jobs
 - <WC_HOME>\schema\db2\wcs.Disable_rfq.Sql

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Scheduler jobs for the auction and RFQ trading methods must be enabled at the site level by running SQL scripts to update SCHCONFIG and SCHACTIVE database tables.

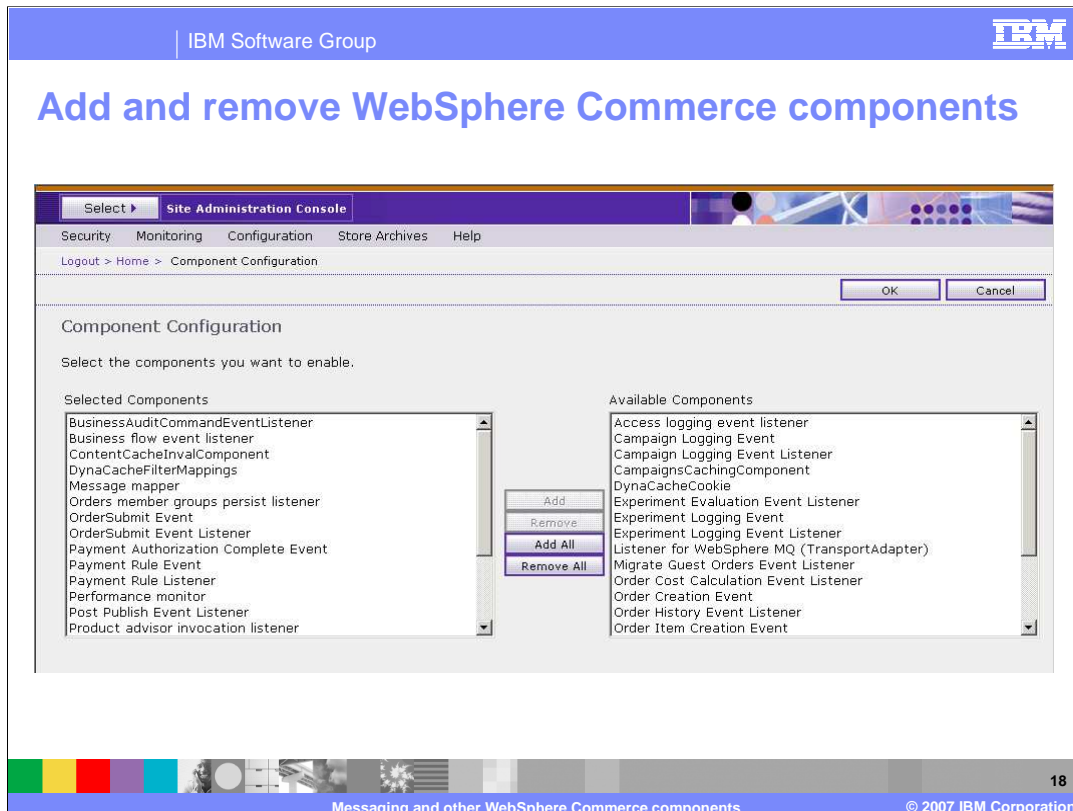
For auctions, the SQL script will be run by configuration manager when you select the enable check box on the auctions component page.

For RFQ, you must run the SQL script manually from a DB2 command window.

Cleaning job status records

- Job status records are appended to the table SCHSTATUS
 - ▶ Records are not removed automatically
 - ▶ If the table grows large it could affect performance
- Manual remove records using administration console scheduler page
 - ▶ To remove a single job record, select a job and click **Remove Record**
 - ▶ To remove all records, click **Remove All Records**
- Automatically remove records older than a specified time
 - ▶ Schedule the CleanJob command
 - ▶ Pass parameter endTime=LASTWEEK or endTime=LASTMONTH

If the SCHSTATUS table grows too large it may affect performance. Records can be cleaned manually from the administration console scheduler page or automatically with the CleanJob command.



The Component Configuration page allows you to dynamically select which server components are enabled. Many of the components are Event Listeners, which are used to collect statistics on site usage or specific events. These statistics are available in many forms, including reports available in Accelerator and Analyzer. Other WebSphere Commerce features may also use components to enable and disable functionality, for instance DynaCache, which uses the DynaCacheCookie component to allow the edge cache access to session information.

To add or remove WebSphere Commerce components, first open the Administration Console and select Site on the Administration Console Site/Store Selection page; then from the Configuration menu, click on Component Configuration. Use the Add and Remove buttons in the center to move components between the two list boxes. Components in the left box will be used by WebSphere Commerce. Click OK to save the component configuration. WebSphere Commerce does not need to be restarted for your changes to go into effect.

Recommended courses

Formal education exists for this product and you can find information on recommended training paths and certification tests at these links.

- Application developer for WebSphere Commerce V6
<http://www-304.ibm.com/ict03001c/services/learning/ites.wss/us/en?pageType=page&c=a0011792>
- Business user for WebSphere Commerce V6
<http://www-304.ibm.com/ict03001c/services/learning/ites.wss/us/en?pageType=page&c=a0011793>
- System administrator for WebSphere Commerce V6
<http://www-304.ibm.com/ict03001c/services/learning/ites.wss/us/en?pageType=page&c=a0011794>



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