

IBM WebSphere Business Connection



# Registration Flow Collaboration

*Version 1.1.0*

**Note!**

Before using this information and the product it supports, be sure to read the general information under “Notices” on page 31.

**First Edition (September 2002)**

This edition applies to Version 1, Release 1, Modification 0, of *IBM® WebSphere® Business Connection* (5724-D26) and to all subsequent releases and modifications until otherwise indicated in new editions.

IBM welcomes your comments. You can send them to the following address:

IBM Canada Ltd. Laboratory  
Information Development  
8200 Warden Avenue  
Markham, Ontario, Canada L6G 1C7

Include the title and order number of this book, and the page number or topic related to your comment.

When you send information to IBM, you grant IBM a nonexclusive right to use or distribute the information in any way it believes appropriate without incurring any obligation to you.

© Copyright International Business Machines Corporation 2002. All rights reserved.

US Government Users Restricted Rights – Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

---

## Contents

Registration Flow Collaboration . . . . .	1
BCT_TPRegFlow Collaboration . . . . .	3
BCTPartnerProfileGBO . . . . .	7
XML_TLO_BCTPartnerProfile business object . . . . .	9
XML_BCTPartnerProfile business object . . . . .	11
XML_BCTPartnerProfile_ebXMLInfo business object . . . . .	13
XML_BCTPartnerProfile_TPIServerProfile business object . . . . .	15
XML_BCTPartnerProfile_WSGWProfile business object. . . . .	17
XML_BCTPartnerProfile_TPIContectorProfile business object. . . . .	19
XML_BCTPartnerProfile_ServiceInfo business object. . . . .	21
XML_BCTPartnerProfile_CMSPProfile business object. . . . .	23
XML_BCTPartnerProfile_DIServiceProfile business object. . . . .	25
XML_BCTPartnerProfile_CommunicationInformation business object. . . . .	27
Connectors. . . . .	29
Notices . . . . .	31



---

## Registration Flow Collaboration

The Registration and Provisioning component of IBM<sup>(R)</sup> WebSphere<sup>(R)</sup> Business Connection is made up of a variety of programming elements that provide a complete service for organizations to register with trading partners (marketplaces and service providers, for example).

For the organization that wants to register, Registration and Provisioning provides an easy sign-up process. After registering, the administrator of an organization can then subscribe to services of the trading partner as well as update information about the organization.

For the trading partner (the marketplace or service provider), the benefits are an easy-to-use registration for its subscribing organizations and provisioning of services to the subscribers.

A significant and important part of Registration and Provisioning is the BCT\_TPRegFlow collaboration, which is activated whenever a new organization registers with the trading partner. The collaboration uses the profile information about an organization to invoke the Federation Service, which exports the profile to the appropriate gateway and which transfers information about the trading partner to the newly registered organization. The result is that both the registering organization and the trading partner have the information needed to communicate with each other.

For information about the BCT\_TPRegFlow collaboration, see “BCT\_TPRegFlow Collaboration” on page 3.

If you want information on registering as an organization with a trading partner or on administering organization requests, refer to the Administering the System document, which describes the tasks for using this service.

---

### Use case - Administrator registers organization

This process involves an administrator of an organization who wants to register with a marketplace or service provider as a trading partner.

#### Actors

This use case has a single actor, the administrator.

#### Course

The following tables describe the main course that may be followed in the case:

*Table 1. Use case description (main course)*

#	Activity by the actor	System activity	Reference
M1	Requests registration form by entering URL	Displays initial registration screen	
M2	Enters organization information, which is stored in its own database	Profile is stored	

Table 1. Use case description (main course) (continued)

#	Activity by the actor	System activity	Reference
M3	Sends profile information to trading partner	Administrator at trading partner is notified of request	
M4	Receives notification that request is accepted	Registration collaboration kicks off process whereby the trading partner's profile is exported to the customer's Federated Partner Profile	

---

## Use case - Administrator at trading partner accepts registration

This process involves the administrator at the trading partner who receives a request for the registration of an organization.

### Actors

This use case has a single actor, the administrator at the trading partner.

### Course

The following tables describe the main course that may be followed in the case:

Table 2. Use case description (main course)

#	Activity by the actor	System activity	Reference
M1	Receives notification that a registration request has arrived	Request is added to Customer Accounts page as "Guest"	
M2	Approves request	Registration collaboration kicks off process whereby the customer's profile is exported to the appropriate gateway	

---

## BCT\_TPRegFlow Collaboration

The BCT\_TPRegFlow collaboration is used to pass a business object (representing the profile of a registering organization) to the Federation Service, which exports the profile to the appropriate gateways.

BCT\_TPRegFlow uses the generic XML\_BCTPartnerProfile business object to represent the profile. The XML\_BCTPartnerProfile is a child business object of XML\_TLO\_BCTPartnerProfile, which is itself a child object of the top-level BCTPartnerProfileGBO.

---

### Required documents

The BCT\_TPRegFlow collaboration is based on CollaborationFoundation and uses its features, ports, and configuration properties.

To create and configure a BCT\_TPRegFlow collaboration object, use the following documents:

- This document for the BCT\_TPRegFlow collaboration-specific information.
- *Standard Collaboration Processes* for information about business processes inherited from CollaborationFoundation.
- *Standard Collaboration Properties* for information about configuration properties inherited from CollaborationFoundation.
- *Collaboration Development Guide* for information about Collaboration Foundation, and for general information about creating and configuring collaboration objects.

---

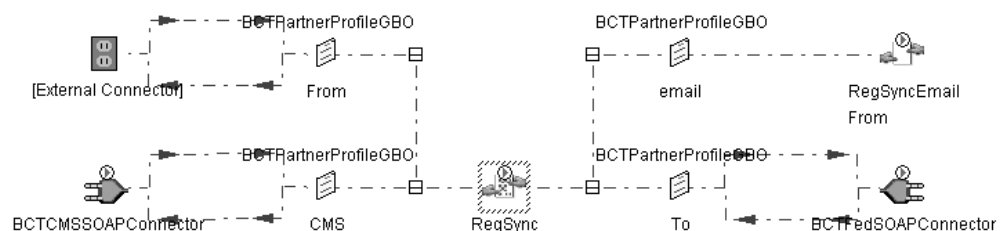
### Collaboration setup

This section includes the following information:

- “Port information”
- “Setting up the collaboration” on page 4

#### Port information

The following diagram illustrates BCT\_TPRegFlow’s ports, as they are displayed in the IBM CrossWorlds<sup>(R)</sup> System Manager (CSM):



**Note:** To keep the collaboration from using a port, bind that port to the Port connector. Doing so indicates that the port is unused without causing the collaboration to provide additional functionality.

Table 3. Port name: From

Business Object	Bound To	Function	Verbs Used
BCT_Partner ProfileGBO	Source application (Provisioning Handler via the SAI)	Receives the triggering business object.	Retrieve

Table 4. Port name: To

Business Object	Bound To	Function	Verbs Used
BCT_Partner ProfileGBO	SOAP Connector to Federation Service	Sends the triggering business object to the Federation Service to federate the partner profile	Retrieve

Table 5. Port name: CMS

Business Object	Bound To	Function	Verbs Used
BCT_Partner ProfileGBO	SOAP Connector to Federation Service	Sends the triggering business object to the Federation Service to update the partner's status in the CMS	Retrieve

Table 6. Port name: email

Business Object	Bound To	Function	Verbs Used
BCT_Partner ProfileGBO	RegSyncEmail From port	Sends the triggering business object to an E-mail collaboration to update the primary contact on the status of registration	Retrieve

## Setting up the collaboration

To set up BCT\_TPRegFlow as a stand-alone collaboration object, complete the following steps:

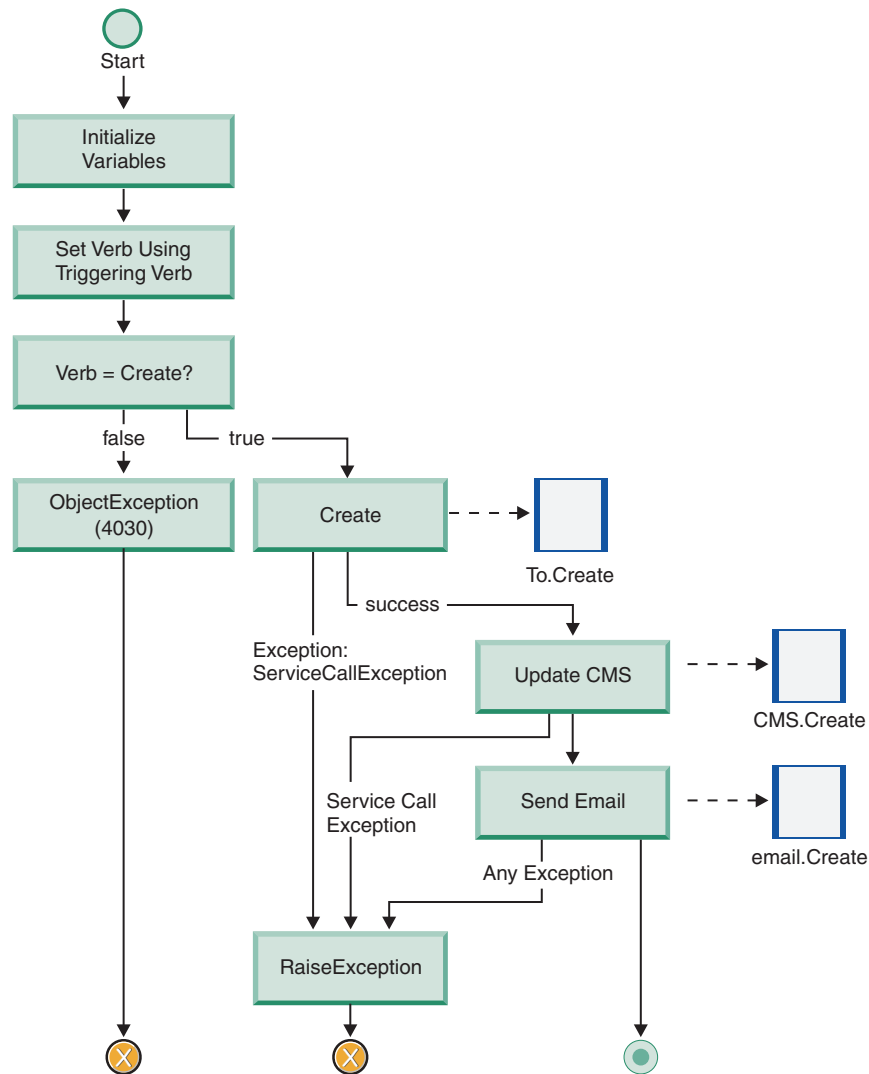
1. Create the BCT\_TPRegFlow collaboration object.
2. Bind the collaboration object's port to the destination application's connector or to the Port connector.
3. Bind the remaining ports as described in "Port information" on page 3.

---

## Synchronization process

The following diagram illustrates BCT\_TPRegFlow's process logic.





## Viewing collaboration messages

To view an explanation of this collaboration's messages, invoke Message Browser and open the collaboration's message file.

To invoke Message Browser and open the collaboration message file, complete the following actions:

1. In the Start menu, click **Programs > CrossWorlds > Server and Tools > Message Browser**.
2. On the **File** menu, click **Open**.
3. Use the **Look In** field to change the current folder to `\collaborations\messages\BCT_TPRegFlow.txt`

## See also

- "BCTPartnerProfileGBO" on page 7
- "XML\_TLO\_BCTPartnerProfile business object" on page 9
- "XML\_BCTPartnerProfile business object" on page 11



---

## BCTPartnerProfileGBO

The generic BCTPartnerProfileGBO business object is used to carry information about a registering trading partner. It is a top-level business object and has one child attribute, XML\_TLO\_BCTPartnerProfile.

---

### Business object structure

BCTPartnerProfileGBO includes the following attributes:

*Table 7. Business object attributes*

Name	Type	Key	Cardinality
URL	String	x	
MimeType	String		
BOprefix	String		
XMLDeclaration	String		
DocType	String		
UpdateStatus	String		
TLO	XML_TLO_BCTPartner Profile		1
ObjectEventId	String		

---

### Supported verbs

The generic BCTPartnerProfileGBO business object supports the Retrieve verb.

---

### Examining the object

To examine a listing of the attributes of the generic BCTPartnerProfileGBO business object, use CrossWorlds System Manager or CrossWorlds Business Object Designer.

---

### See also

For more information on related business objects and collaborations, see the following documents:

- “BCT\_TPRegFlow Collaboration” on page 3
- “XML\_TLO\_BCTPartnerProfile business object” on page 9



---

## XML\_TLO\_BCTPartnerProfile business object

The generic XML\_TLO\_BCTPartnerProfile business object is used to bundle business objects for translation from XML.

---

### Business object structure

XML\_TLO\_BCTPartnerProfile includes the following attributes:

*Table 8. Business object attributes*

Name	Type	Key	Cardinality
BCTPartnerProfile	XML_BCTPartnerProfile		1
ObjectEventId	String		

---

### Supported verbs

The generic XML\_TLO\_BCTPartnerProfile business object supports the Retrieve verb.

---

### Examining the object

To examine a listing of the attributes of the generic XML\_TLO\_BCTPartnerProfile business object, use CrossWorlds System Manager or CrossWorlds Business Object Designer.

---

### See also

For more information on related business objects and collaborations, see the following documents:

- “BCT\_TPRegFlow Collaboration” on page 3
- “BCTPartnerProfileGBO” on page 7
- “XML\_BCTPartnerProfile business object” on page 11



---

## XML\_BCTPartnerProfile business object

The generic XML\_BCTPartnerProfile business object is used to carry information about a registering trading partner.

---

### Business object structure

XML\_BCTPartnerProfile includes the following attributes:

*Table 9. Business object attributes*

Name	Type	Key	Cardinality
email_message_text	String		
email_message_subject	String		
correlationID	String		
serviceURL	String		
companyName	String	x	
interchangeType	String		
interchangeId	String		
addressLine1	String		
addressLine2	String		
addressLine3	String		
city	String		
state	String		
postalCode	String		
primaryContact Name	String		
primaryContact Phone	String		
primaryContactFax	String		
primaryContactEmail	String		
secondaryContact Name	String		
secondaryContact Phone	String		
secondaryContact Fax	String		
secondaryContact Email	String		
ebXMLInfo	XML_BCTPartnerProfile_ebXMLInfo		1
TPIServerProfile	XML_BCTPartnerProfile_TPIServerProfile		1
WSGWProfile	XML_BCTPartnerProfile_WSGWProfile		1

Table 9. Business object attributes (continued)

Name	Type	Key	Cardinality
TPICollectorProfile	XML_BCTPartnerProfile_TPICollectorProfile		1
ServiceInfo	XML_BCTPartnerProfile_ServiceInfo		n
CMSProfile	XML_BCTPartnerProfile_CMSProfile		1
DIServiceProfile	XML_BCTPartnerProfile_DIServiceProfile		1
ObjectEventId	String		

---

## Supported verbs

The generic XML\_BCTPartnerProfile business object supports the Retrieve verb.

---

## Examining the object

To examine a listing of the attributes of the generic XML\_BCTPartnerProfile business object, use CrossWorlds System Manager or CrossWorlds Business Object Designer.

---

## See also

For more information on related business objects and collaborations, see the following documents:

- “BCT\_TPRegFlow Collaboration” on page 3
- “BCTPartnerProfileGBO” on page 7
- “XML\_TLO\_BCTPartnerProfile business object” on page 9
- “XML\_BCTPartnerProfile\_ebXMLInfo business object” on page 13
- “XML\_BCTPartnerProfile\_TPIServerProfile business object” on page 15
- “XML\_BCTPartnerProfile\_WSGWProfile business object” on page 17
- “XML\_BCTPartnerProfile\_TPICollectorProfile business object” on page 19
- “XML\_BCTPartnerProfile\_ServiceInfo business object” on page 21
- “XML\_BCTPartnerProfile\_CMSProfile business object” on page 23
- “XML\_BCTPartnerProfile\_DIServiceProfile business object” on page 25



---

## XML\_BCTPartnerProfile\_ebXMLInfo business object

The generic XML\_BCTPartnerProfile\_ebXMLInfo business object is reserved for future use.

---

### Business object structure

XML\_BCTPartnerProfile\_ebXMLInfo includes the following attributes:

*Table 10. Business object attributes*

Name	Type	Key	Cardinality
CPAId	String		
CPALocation	String		
version	String		
ObjectEventId	String		

---

### Supported verbs

The generic XML\_BCTPartnerProfile\_ebXMLInfo business object supports the Retrieve verb.

---

### Examining the object

To examine a listing of the attributes of the generic XML\_BCTPartnerProfile\_ebXMLInfo business object, use CrossWorlds System Manager or CrossWorlds Business Object Designer.

---

### See also

For more information on related business objects and collaborations, see the following documents:

- “BCT\_TPRegFlow Collaboration” on page 3
- “XML\_BCTPartnerProfile business object” on page 11



---

## XML\_BCTPartnerProfile\_TPIServerProfile business object

The generic XML\_BCTPartnerProfile\_TPIServerProfile business object is used to carry information about a trading partner's TPI server.

---

### Business object structure

XML\_BCTPartnerProfile\_TPIServerProfile includes the following attributes:

*Table 11. Business object attributes*

Name	Type	Key	Cardinality
filename	String		
ObjectEventId	String		

---

### Supported verbs

The generic XML\_BCTPartnerProfile\_TPIServerProfile business object supports the Retrieve verb.

---

### Examining the object

To examine a listing of the attributes of the generic XML\_BCTPartnerProfile\_TPIServerProfile business object, use CrossWorlds System Manager or CrossWorlds Business Object Designer.

---

### See also

For more information on related business objects and collaborations, see the following documents:

- “BCT\_TPRegFlow Collaboration” on page 3
- “XML\_BCTPartnerProfile business object” on page 11



---

## XML\_BCTPartnerProfile\_WSGWProfile business object

The generic XML\_BCTPartnerProfile\_WSGWProfile business object is used to carry information about a trading partner's Web Services Gateway setup.

---

### Business object structure

XML\_BCTPartnerProfile\_WSGWProfile includes the following attributes:

*Table 12. Business object attributes*

Name	Type	Key	Cardinality
password	String		
userid	String		
authType	String		
authCertType	String		
authCertKeyLength	String		
authOrgCertSource	String		
authCertIssuerName	String		
encryptType	String		
encryptCertType	String		
encryptCertKeyLength	String		
encryptOrgCert Source	String		
encryptCertIssuer Name	String		
filename	String		
ObjectEventId	String		

---

### Supported verbs

The generic XML\_BCTPartnerProfile\_WSGWProfile business object supports the Retrieve verb.

---

### Examining the object

To examine a listing of the attributes of the generic XML\_BCTPartnerProfile\_WSGWProfile business object, use CrossWorlds System Manager or CrossWorlds Business Object Designer.

---

### See also

For more information on related business objects and collaborations, see the following documents:

- “BCT\_TPRegFlow Collaboration” on page 3
- “XML\_BCTPartnerProfile business object” on page 11



---

## XML\_BCTPartnerProfile\_TPIConnectorProfile business object

The generic XML\_BCTPartnerProfile\_TPIConnectorProfile business object is used to carry information about a trading partner's TPI connector.

---

### Business object structure

XML\_BCTPartnerProfile\_TPIConnectorProfile includes the following attributes:

*Table 13. Business object attributes*

Name	Type	Key	Cardinality
xmlMimeType	String		
ediMimeType	String		
binaryMimeType	String		
configfilename	String		
filename	String		
ObjectEventId	String		

---

### Supported verbs

The generic XML\_BCTPartnerProfile\_TPIConnectorProfile business object supports the Retrieve verb.

---

### Examining the object

To examine a listing of the attributes of the generic XML\_BCTPartnerProfile\_TPIConnectorProfile business object, use CrossWorlds System Manager or CrossWorlds Business Object Designer.

---

### See also

For more information on related business objects and collaborations, see the following documents:

- “BCT\_TPRegFlow Collaboration” on page 3
- “XML\_BCTPartnerProfile business object” on page 11





---

## XML\_BCTPartnerProfile\_ServiceInfo business object

The generic XML\_BCTPartnerProfile\_ServiceInfo business object is used to carry information about a trading partner's Web services.

---

### Business object structure

XML\_BCTPartnerProfile\_ServiceInfo includes the following attributes:

*Table 14. Business object attributes*

Name	Type	Key	Cardinality
name	String		
type	String		
invocationType	String		
roleName	String		
roleType	String		
roleId	String		
IsAdmin	String		
description	String		
privilegeMask	String		
gatewayType	String		
channelType	String		
transportType	String		
serviceURL	String		
serviceURI	String		
serviceId	String		
Communication Information	XML_BCTPartnerProfile_CommunicationInformation business object		1
ObjectEventId	String		

---

### Supported verbs

The generic XML\_BCTPartnerProfile\_ServiceInfo business object supports the Retrieve verb.

---

### Examining the object

To examine a listing of the attributes of the generic XML\_BCTPartnerProfile\_ServiceInfo business object, use CrossWorlds System Manager or CrossWorlds Business Object Designer.

---

## See also

For more information on related business objects and collaborations, see the following documents:

- “BCT\_TPRegFlow Collaboration” on page 3
- “XML\_BCTPartnerProfile business object” on page 11
- “XML\_BCTPartnerProfile\_CommunicationInformation business object” on page 27

---

## XML\_BCTPartnerProfile\_CMSPProfile business object

The generic XML\_BCTPartnerProfile\_CMSPProfile business object is used to carry information about a trading partner's information relating to CMS.

---

### Business object structure

XML\_BCTPartnerProfile\_CMSPProfile includes the following attributes:

*Table 15. Business object attributes*

Name	Type	Key	Cardinality
filename	String		
ObjectEventId	String		

---

### Supported verbs

The generic XML\_BCTPartnerProfile\_CMSPProfile business object supports the Retrieve verb.

---

### Examining the object

To examine a listing of the attributes of the generic XML\_BCTPartnerProfile\_CMSPProfile business object, use CrossWorlds System Manager or CrossWorlds Business Object Designer.

---

### See also

For more information on related business objects and collaborations, see the following documents:

- “BCT\_TPRegFlow Collaboration” on page 3
- “XML\_BCTPartnerProfile business object” on page 11



---

## XML\_BCTPartnerProfile\_DIServiceProfile business object

The generic XML\_BCTPartnerProfile\_DIServiceProfile business object is used to carry information about a trading partner's EDI setup.

---

### Business object structure

XML\_BCTPartnerProfile\_DIServiceProfile includes the following attributes:

*Table 16. Business object attributes*

Name	Type	Key	Cardinality
filename	String		
ObjectEventId	String		

---

### Supported verbs

The generic XML\_BCTPartnerProfile\_DIServiceProfile business object supports the Retrieve verb.

---

### Examining the object

To examine a listing of the attributes of the generic XML\_BCTPartnerProfile\_DIServiceProfile business object, use CrossWorlds System Manager or CrossWorlds Business Object Designer.

---

### See also

For more information on related business objects and collaborations, see the following documents:

- “BCT\_TPRegFlow Collaboration” on page 3
- “XML\_BCTPartnerProfile business object” on page 11



---

## XML\_BCTPartnerProfile\_CommunicationInformation business object

The generic XML\_BCTPartnerProfile\_CommunicationInformation business object is used to carry communication information about a trading partner's web services.

---

### Business object structure

XML\_BCTPartnerProfile\_CommunicationInformation includes the following attributes:

*Table 17. Business object attributes*

Name	Type	Key	Cardinality
messageType	String		
outboundDirectory	String		
ObjectEventId	String		

---

### Supported verbs

The generic XML\_BCTPartnerProfile\_CommunicationInformation business object supports the Retrieve verb.

---

### Examining the object

To examine a listing of the attributes of the generic XML\_BCTPartnerProfile\_CommunicationInformation business object, use CrossWorlds System Manager or CrossWorlds Business Object Designer.

---

### See also

For more information on related business objects and collaborations, see the following documents:

- “BCT\_TPRegFlow Collaboration” on page 3
- “XML\_BCTPartnerProfile\_ServiceInfo business object” on page 21





---

## Connectors

The Registration flow collaboration communicates with the following connectors:

*Table 18. BCT\_RegistrationFlow collaboration connectors*

Registration Flow Connector	Based on CrossWorlds:
External Connector	Server Access Interface
BCT_CMSSOAPConnector	SOAP Connector
BCT_FedSOAPConnector	SOAP Connector

The External connector (Server Access Interface) receives the partner profile generic business object and forwards it to the collaboration. The collaboration forwards the information to the BCT\_FedSOAPConnector, which is based on the CrossWorlds SOAP connector. It also passes it to the BCT\_CMSSOAPConnector, which interacts directly with the database.

The Server Access Interface and SOAP connectors are described in the CrossWorlds documentation.



---

## Notices

IBM may not offer the products, services, or features discussed in this document in all countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not give you any license to these patents. You can send license inquiries, in writing, to:

IBM Director of Licensing  
IBM Corporation  
North Castle Drive  
Armonk, NY 10504-1785  
U.S.A.

**The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law:**

INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or program(s) described in this publication at any time without notice.

Any references in this information to non-IBM Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this IBM product and use of those Web sites is at your own risk.

IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

WebSphere Business Connection Lab Director  
IBM RTP Laboratory  
3039 Cornwallis Road  
P.O. BOX 12195

Raleigh, NC 27709-2195  
U.S.A

Such information may be available, subject to appropriate terms and conditions, including in some cases, payment of a fee.

The licensed program described in this document and all licensed material available for it are provided by IBM under terms of the IBM Customer Agreement, IBM International Program License Agreement, or any equivalent agreement between us.

Any performance data contained herein was determined in a controlled environment. Therefore, the results obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurement may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

This information contains examples of data and reports used in daily business operations. To illustrate them as completely as possible, the examples may include the names of individuals, companies, brands, and products. All of these names are fictitious and any similarity to the names and addresses used by an actual business enterprise is entirely coincidental.

All statements regarding IBM's future direction or intent are subject to change or withdrawal without notice, and represent goals and objectives only.

#### COPYRIGHT LICENSE:

This information contains sample application programs in source language, which illustrates programming techniques on various operating platforms. You may copy, modify, and distribute these sample programs in any form without payment to IBM, for the purposes of developing, using, marketing or distributing application programs conforming to the application programming interface for the operating platform for which the sample programs are written. These examples have not been thoroughly tested under all conditions. IBM, therefore, cannot guarantee or imply reliability, serviceability, or function of these programs. You may copy, modify, and distribute these sample programs in any form without payment to IBM for the purposes of developing, using, marketing, or distributing application programs conforming to IBM's application programming interfaces.

---

## Programming interface information

Programming interface information is intended to help you create application software using this program.

General-use programming interfaces allow you to write application software that obtain the services of this program's tools.

However, this information may also contain diagnosis, modification, and tuning information. Diagnosis, modification and tuning information is provided to help you debug your application software.

**Warning:** Do not use this diagnosis, modification, and tuning information as a programming interface because it is subject to change.

---

## Trademarks and service marks

The following terms are trademarks of International Business Machines Corporation in the United States, other countries, or both:

IBM  
alphaWorks  
AIX  
CrossWorlds  
DB2  
DB2 OLAP Server  
DB2 Universal Database  
DeveloperWorks  
MQSeries  
SecureWay  
WebSphere

Lotus is a trademark of International Business Machines Corporation and Lotus Development Corporation in the United States, other countries, or both.

Java and all Java-based trademarks are trademarks of Sun Microsystems, Inc. in the United States, other countries, or both.

Microsoft, Windows, Windows NT, and the Windows logo are trademarks of Microsoft Corporation in the United States, other countries, or both.

MMX, Pentium and ProShare are trademarks of Intel Corporation in the United States, other countries, or both.

Other company, product or service names may be trademarks or service marks of others.