#### JD Edwards EnterpriseOne

Transaction Server Reference Guide Release 9.1 for Microsoft Windows using WebSphere Application Server E24427-06

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JD Edwards EnterpriseOne Transaction Server Reference Guide, Release 9.1 for Microsoft Windows using WebSphere Application Server

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### Preface

Welcome to the JD Edwards EnterpriseOne Transaction Server Reference Guide for Microsoft Windows on WebSphere.

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#### **Related Documents**

You can access related documents from the JD Edwards EnterpriseOne Release Documentation Overview pages on My Oracle Support. Access the main documentation overview page by searching for the document ID, which is 876932.1, or by using this link:

https://support.oracle.com/CSP/main/article?cmd=show&type=NOT&id=876932.1

To navigate to this page from the My Oracle Support home page, click the Knowledge tab, and then click the Tools and Training menu, JD Edwards EnterpriseOne, Welcome Center, Release Information Overview.

The most current versions of this guide and all other JD Edwards EnterpriseOne Tools and Installation/Upgrade documentation is available on the Oracle Technology Network:

http://www.oracle.com/technetwork/documentation/jdedent-098169.html

This guide contains references to server configuration settings It is highly recommended that you only access and manage these settings for the supported server types using the Server Manager program. For additional details, refer to the *JD Edwards EnterpriseOne Server Manager Guide*.

#### Conventions

The following text conventions are used in this document:

Convention	Meaning				
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.				
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.				
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.				

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### Understanding the Transaction Server Components

This chapter describes:

- Section 1.1, "Overview"
- Section 1.2, "Certifications (Formerly Known as Minimum Technical Requirements)"
- Section 1.3, "Obtaining the Transaction Server Managed Software Component"
- Section 1.4, "Prerequisites"
- Section 1.5, "Understanding Transaction Server Communications"

#### 1.1 Overview

The JD Edwards EnterpriseOne Transaction Server Components installer performs the installation, upgrade, and configuration of the Transaction Server Components. These components provide the Real Time Events functionality on the Transaction Server.

This document is not a substitute for the administration manuals provided by your IBM WebSphere Application Server vendor, the network administration manuals provided by your network vendor, or the installation and configuration manuals for third-party products used with JD Edwards EnterpriseOne.

The procedures in this guide support the IBM WebSphere Application Server. This document is designed for management information system (MIS) managers and installers. To successfully install the Transaction Server Components on an Application Server, you must have a working knowledge of these topics:

- Hardware and software requirements
- IBM WebSphere Application Server setup and administration
- JD Edwards EnterpriseOne platforms and operating systems

The recommended method of obtaining this information is to attend the relevant training courses. Information about course offerings, dates, and locations is available on My Oracle Support. At a minimum, read these guides before beginning:

- JD Edwards EnterpriseOne Tools Foundation Guide
- JD Edwards EnterpriseOne Tools Configurable Network Computing Implementation Guide
- JD Edwards EnterpriseOne Tools System Administration Guide

- JD Edwards EnterpriseOne Tools Package Management Guide
- JD Edwards EnterpriseOne Tools Server and Workstation Administration Guide

#### 1.2 Certifications (Formerly Known as Minimum Technical Requirements)

Customers must conform to the supported platforms for the release as detailed in the JD Edwards EnterpriseOne Certifications (formerly known as Minimum Technical Requirements). In addition, JD Edwards EnterpriseOne may integrate, interface, or work in conjunction with other Oracle products. Refer to the following link for cross-reference material in the Program Documentation for Program prerequisites and version cross-reference documents to assure compatibility of various Oracle products.

http://www.oracle.com/corporate/contracts/index.html

Refer to the Certifications tab on My Oracle Support and search for this product:

JD Edwards EnterpriseOne Transaction Server.

For additional information on using Certifications, refer to this document on My Oracle Support (https://support.oracle.com):

Certifications FAQ for JD Edwards EnterpriseOne [Article ID 1525328.1]

#### 1.3 Obtaining the Transaction Server Managed Software Component

You can obtain the Transaction Server Managed Software Component from:

- Update Center
- Change Assistant

The name of the component to download is called 91xTy, where x is the major tools release (for example, 9.1) and y is the maintenance release. For example, the Managed Software Component for the Transaction Server for 9.1.3.0 is called 91T30.

**Note:** Once obtained, the Transaction Server Managed Software Component is installed using the JD Edwards EnterpriseOne tool called Server Manager. Refer to the *JD Edwards EnterpriseOne Server Manager Guide* for additional details.

#### 1.4 Prerequisites

These prerequisites are required prior to installing the Transaction Server Components on an Application Server.

 IBM WebSphere Application Server must be installed, configured and running. Refer to this document for JD Edwards EnterpriseOne-specific installation instructions for the application servers (including patches):

#### JD Edwards EnterpriseOne 9.1.X HTML Server Certifications (Doc ID 1506201.1)

 Verify that your installation meets the prerequisites for installing the IBM WebSphere Application Server at this link:

http://www-01.ibm.com/software/webservers/appserv/was/library/index.htm
1

#### 1.5 Understanding Transaction Server Communications

The JD Edwards EnterpriseOne Server Manager communicates with the Transaction Server using JMX (Java Management Extensions). The Embedded Agent in the Transaction Server does not connect to HTTP nor does it connect using Plugins. This is the mechanism by which Server Manager manages the Transaction Server.

The Embedded Agent generally allocates ports in an incremental manner. For example, if a Server Manager Agent installed on the machine is running on port number 14502 (default) then the Embedded Agents running inside managed instances on that machine would allocate ports starting from 14502+1=14503, 14504, and so on depending on the number of managed instances on that machine.

**Tip:** In order to ascertain the Port Number on which the Transaction Server Embedded Agent is running, open the SystemOut.log file of the WebSphere J2EE Container and search for the string \*Management Agent\* which should take you to a line containing this string:

00000017 Server I Starting the management agent listener on port '14503'

The Transaction Server communicates with the JD Edwards EnterpriseOne Enterprise Servers using the EnterpriseOne Proprietary Communication Protocol; that is, JDENET messages.

The Transaction Server connects to the JD Edwards EnterpriseOne database using proprietary database middleware (JDBj). The default ports are dependent on the database type:

- 1521 for Oracle database
- 1433 for SQL Server database
- 50000 for DB2 database

Although the above are default ports, it is possible to run these databases on different ports. Further, these ports are only defined for the Bootstrap database. The JDBj code retrieves the port numbers for the other databases from the Data Source Master Table based on the port numbers for each of the Data Source records as configured during the Planner and Workbench and the Work with Data Sources Application.

## Configuring the Transaction Server Components

You must use Server Manager Console to install and configure Transaction Server instances. These Server Manager settings for the Transaction Server are found under Configuration section of Transaction Server Instance:

- Section 2.1, "JDBj Database Configuration"
- Section 2.2, "Real Time Events"
- Section 2.3, "Network Settings"
- Section 2.4, "Log File Configuration (jdelog.properties)"

#### 2.1 JDBj Database Configuration

These sections of Server Manager control the JDBj settings:

- Section 2.1.1, "JDBj Bootstrap Datasource"
- Section 2.1.2, "JDBj Bootstrap Session"
- Section 2.1.3, "JDBj Connection Pools"
- Section 2.1.4, "JDBC Drivers"
- Section 2.1.5, "JDBj Logging"
- Section 2.1.6, "Oracle Database Settings"
- Section 2.1.7, "JDBj Runtime Properties"
- Section 2.1.8, "JDBj Spec Datasource"

#### 2.1.1 JDBj Bootstrap Datasource

This section defines the data source where OCM and some other system tables reside. JDBj uses this at bootstrap time and later to look up OCM entries on demand. If the information entered here is not valid, you cannot access the JD Edwards EnterpriseOne database.

With a Transaction Server instance selected, the following shows typical values:

<ul> <li>JDBj Bootstrap Datasource</li> </ul>				
This section defines the data source where OCM and some other system tables reside. JDBj uses this at bootstrap time and later to look up OCM entries on demand. If it is not valid, then no JD Edwards EnterpriseOne database access is possible.				
System Datasource Name	<u>(i)</u>	System - 910	ũ lũ	
Database Type	(i)	Oracle Database	ojo	
Database Name	<u>(i</u> )	ie911	i)	
Database Server Name	(j)	den60204jems	i.	
Database TCP/IP Port	(j)	1613	i i	
Physical Database	٦			
Object Owner	<u>(</u>	SY910	0	
Supports Large Objects (LOBS)	(j)			
Unicode Database	<u>(1)</u>			
			Revert to Defaults Apply	

Below is a list of the settings and typical values:

System Datasource Name

Enter the name of your System datasource. For example:

System - 910

- Database Type
   Use the pulldown to select your database type.
- Database Name
   Enter your database name.
- Database Server Name
   Enter the name of your database server.
- Database TCP/IP Port

Enter the TCP/IP port for your database.

Physical Database

Optionally you can choose to specify your physical database.

Object Owner

Enter the object owner for the System datasource. For example:

SY910

#### 2.1.2 JDBj Bootstrap Session

This information is used to sign on with access to system tables. For JD Edwards EnterpriseOne HTML servers, only the user and environment need to be supplied. JDBj signs this user on during the bootstrap process. If the sign on information is not valid, then no access is granted to the JD Edwards EnterpriseOne database. To configure as a Portal WSRP Producer, you must supply a valid EnterpriseOne user and environment and the password and role settings are optional.

With a Transaction Server instance selected, the following shows typical values:

IDBj Bootstrap Session				Areturn To Top	
This information is used to sign on to provide access to system tables. For EnterpriseOne HTML servers, only the user and environment need to be supplied. JDBj signs this user on via the security server during the bootstrap process. If the sign on information is not valid, then no access to the JD Edwards EnterpriseOne database is possible. To configure as a Portal WSRP Producer, a valid E1 user and environment need to be supplied and the password and role settings below are optional.					
Bootstrap User 🖇	D	JDE	0	3	
Bootstrap User Password	(i)	*****			
Bootstrap Role	(j)	*ALL	0	3	
Bootstrap Environment 🖇	(i)	JDV910	0	3	
				Revert to Defaults Apply	

Below is a list of the settings and typical values:

Bootstrap User

Enter the name of your Bootstrap User. For example:

JDE

Bootstrap User

Enter the password for your Bootstrap User.

Bootstrap Role

Enter the role of your Bootstrap User. For example:

\*ALL

Bootstrap Environment

Enter the bootstrap environment. For example:

JDV910

#### 2.1.3 JDBj Connection Pools

These settings control the database connection pooling (sharing of connections) within JDBj. Connections are pooled at the physical datasource level, not the EnterpriseOne logical datasource level.

With a Transaction Server instance selected, the following shows typical values:

<ul> <li>JDBj Connection Pools</li> </ul>				<u>A Retu</u>	rn To Top
These settings control the database connection pooling (sharing of connections) within JDBJ. Connections are pooled at the physical data source level, not the EnterpriseOne logical datasource level.					
Use JDBC Pooling	<u>(1</u> )				
Minimum Connections	<u>(i)</u>	0	00		
Maximum Connections	<u>(1</u> )	50	00		
Pool Growth Size	(1)	5	0		
Initial Connections	<u>(1</u> )	5	ojo		
Connection Timeout	<u>(i</u> )	1800000	0		
Pool Cleaning Interval	<u>(</u>	300000	0		
Maximum Prepared Statements	<u>(</u>	50			
Cache Purge Size	ì	5	0		
				Revert to Defaults	Apply

Below is a list of the settings and typical values:

Minimum Connections

Enter a value. For example:

0

- Maximum Connections
   Enter a value. For example:
   50
- Pool Growth Size

Enter a value. For example:

5

Initial Connections

Enter a value. For example:

5

- Connection Timeout
   Enter a value in milliseconds. For example: 1800000
- Pool Cleaning Interval
   Enter a value in milliseconds. For example:
   300000
- Maximum Prepared Statements
   Enter a value. For example:

50

Cache Purge Size
 Enter a value. For example:

5

#### 2.1.4 JDBC Drivers

These settings specify which JDBC drivers to use for a particular database type.

With a Transaction Server instance selected, the following shows typical values:

JDBC Drivers				(Areturn)	To Top
These settings specify which JDBC drivers to use for a particular data	base t	ype.			
Oracle JDBC Driver	<u>(</u>	oracle.jdbc.driver.OracleDriver	0	0	
AS/400 JDBC Driver	ſ	com.ibm.as400.access.AS400JDBCDriver	0	(0	
SQL Server JDBC Driver	<u>(i</u> )	com.microsoft.sqlserver.jdbc.SQLServerDriver (SQL Server	0	0	
UDB JDBC Driver	ß	COM.ibm.db2.jdbc.app.DB2Driver	0	0	
				Revert to Defaults	Apply

Below is a list of the settings and typical values:

Oracle JDBC Driver

Enter a value. For example:

#### oracle.jdbc.driver.OracleDriver

■ AS/400 JDBC Driver

Enter a value. For example:

#### com.ibm.as400.acess.AS400JDBCDriver

• SQL Server JDBC Driver

Enter a value. For example:

com.microsoft.sqlserver.jdbc.SQL ServerDriver (SQL Server)

UDB JDBC Driver

Enter a value. For example:

COM.ibm.db2.jdbc.app.DB2Driver

#### 2.1.5 JDBj Logging

This setting enables JDBC tracing from the JDBC drivers.

With a Transaction Server instance selected, the following shows typical setting:

🖃 JDBj Logging	Return To Top
These settings enable JDBC tracing from the JDBC drivers.	
Enable JDBC Trace 🕕 📋	
	Revert to Defaults Apply

Enable JDBC Trace

Click the checkbox to enable or disable a JDBC trace from the JDBC drivers.

#### 2.1.6 Oracle Database Settings

This section contains settings that are specific to utilizing Oracle databases. The TNSNAMES.ORA must contain the appropriate connection information for the Oracle database(s) this product will utilize. You may either select an existing location or use the text area to create a new file and update its contents. The TNSNAMES.ORA that is configured for the Management Console (home instance) will be used as a template for additional web products that are installed.

With a Transaction Server instance selected, the following shows typical values:

Oracle Database Settings		A Return To Top
This section contains settings that are specific to utilizing Oracle datab existing location or use the text area to create a new file and update are installed.	iases. it's co	The TNSNAMES.ORA must contain the appropriate connection information for the Oracle database(s) this product will utilize. You may either select an ntents. The TNSNAMES.ORA that is configured for the management console (home instance) will be used as a template for additional web products that
TNSNAMES.ORA Location	<u>(</u>	Z:\jde_home\SCFHA\targets\RTESERVER\config\tnsname:
File Contents		<pre>IE91L =</pre>

Below is a list of the settings and typical values:

TNSNAMES.ORA Location

Specifies the location of the TNSNAMES.ORA file.

File Contents

Displays the contents of the TNSNAMES.ORA file that will be used by the Server Manager Management Console.

#### 2.1.7 JDBj Runtime Properties

These settings correspond to system runtime properties applicable to JDBj logical connections.

With a Transaction Server instance selected, the following shows the typical value:

	Keturn to top
These settings correspond to system runtime properties applicable to JDBJ logical connections.	
Transaction Timeout 🗊 0	
	Revert to Defaults Apply

Below is the setting:

Transaction Timeout

Specifies a value for the transaction timeout. The default is **0**.

#### 2.1.8 JDBj Spec Datasource

This optional section defines the data source where the serialized spec tables reside. JDBj uses these parameters at bootstrap time and after to look up serialized spec objects on demand. If this section is not specified, then JDBj will use the OCM to find the serialized table. If it is not valid, no JD Edwards EnterpriseOne database access is possible.

With a Transaction Server instance selected, the following shows the typical values:

JDBj Spec Datasource				<u>A Ret</u>	urn To Top
This optional section defines the data source where the serialized spec will use the OCM to find the serialized spec table. If it is not valid, no $\rm J$	table D Edv	es reside. JDBj uses these parameters at bootstrap time and after to look up vards EnterpriseOne database access is possible.	serialized spec objects on demand	. If this section is not specified,	, then JDBj
System Datasource Name	<u>(</u>				
Database Type	١	Oracle Database	0		
Database Name	١				
Database Server Name	١				
Database TCP/IP Port	<u>(i)</u>	0			
Physical Database	<u>(</u>				
Object Owner	١				
Supports Large Objects (LOBS)	(ji)				
Unicode Database	<u>(</u> )				
Database User Name	٦				
Database Password	١	*****			
				Revert to Defaults	Apply

Below are the settings:

System Datasource Name

Specifies a value for the System datasource name.

Database Type

For example, a valid database type is Oracle Database.

- Database Name
- Database Server Name

- Database TCP/IP Port
- Physical Database
- Object Owner
- Supports Large Objects (LOBs)
- Unicode Database
- Database User Name
- Database Password

#### 2.2 Real Time Events

This section describes these topics:

- Section 2.2.1, "Event Processor Configuration Settings"
- Section 2.2.2, "Trigger Listener Kernel"

#### 2.2.1 Event Processor Configuration Settings

With a Transaction Server instance selected, the following shows the typical values for Event Processor Configuration Settings:

Event Processor comparation settings						
Sequencing Behavior	٦	Events can be delivered in any sequence.		D <mark>i</mark> O		
Processing Concurrency	<u>(</u>	1	0			
Trigger Listener Delay	(J)	10000		0		
Max Transfer Session Size	١	5000		0		
Initial Context Factory	٦	weblogic.jndi.WLInitialContextFactory	0	0		
JNDI Provider URL	١	t3://dnvmiedp12:1014		0		
Event Transfer Transaction Isolation	ø	serializable		0		
Event Client Session Check Interval	٦	60000		0		
Event Client Session Timeout	٦	3600000		0		
App Server JNDI User	٦	*****				
App Server JNDI Password	(1)	****				
					Revert to Defaults	Apply

Below are the settings:

Sequencing Behavior

This setting describes how the event sequencing occurs during Transaction Server processing.

Event sequencing behavior values are:

- AnySequence

Events can be delivered in any sequence.

- ByEventType

Events are guaranteed to be delivered in sequence by event type.

- ByUserSession

Events are guaranteed to be delivered in sequence by originating user session.

- GlobalFIFO

Events are guaranteed to be delivered in sequence by their original generation sequence. This option does not permit concurrent processing and may impact performance. When this option is selected the **Processing Concurrency** value is ignored.

Processing Concurrency

This setting describes the number of concurrent event processing threads to run. Maximum of 4 concurrent threads can run enhancing the Transaction Server processing performance.

Trigger Listener Delay

This setting specifies the time, in milliseconds, between timer checks of the database for events waiting to be processed. A negative value will disable the timer.

Max Transfer Session Size

This setting specifies the maximum number of events to transfer in one transfer session (that is, one result set from the database).

Initial Context Factory

The InitialContextFactory for the JNDI service of the event server. This value is set as per the transaction server environment.

Provider URL

The Provider URL for the JNDI service of the event server. This value is automatically set as per the transaction server environment.

Event Transfer Transaction Isolation

The transaction isolation level to be used by the transfer agent when reading committed events from the database.

Suggested values based on database server type hosting the F90710 table are shown in the following table:

Server Type	Isolation Level
AS/400	repeatable read
Oracle	serializable
SQL Server	serializable
IBM DB2	repeatable read

Event Client Session Check Interval

This configuration is to check the frequency to check for an expired session.

Event Client session Timeout

This configuration is to check how long a session can be idle before it is timed out.

- App Server JDNI User
- App Server JDNI Password

#### 2.2.2 Trigger Listener Kernel

This setting applies to the TriggerListener Kernel thread responsible to receive messages from the Enterprise Server that an event has been triggered. All of the configuration settings found under this section are predefined and should **not** be changed.

Trigger Listener Kernel			<u>Return To Top</u>
This setting is for the TriggerListener kernel thread. This thread is resp processing of the Transaction Server.	onsib	le to receive messages from Enterprise Logic Server that an event has been	entered into table. Once this message is received the Listener triggers the
Kernel Name	Þ	TriggerListener Kernel	
Process Class Name	١	com.peoplesoft.pt.e1.server.enterprise.events.triggerlisten	
Start Message Range	Ð	15500	0
End Message Range	Ð	15750	- dia
Maximum Threads	ø	3	00
			Revert to Defaults Apply

#### 2.3 Network Settings

This section describes these topics:

- Section 2.3.1, "JDENET Configuration"
- Section 2.3.2, "Security Server Configuration"

#### 2.3.1 JDENET Configuration

These settings configure how JDENET, which is the EnterpriseOne messaging protocol, is configured. Any changes to the JDENET configuration will require restarting the server to take effect.

- Johner configuration					
These settings configure how JDENET, the EnterpriseOne messaging pr	hese settings configure how JDENET, the EnterpriseOne messaging protocol, is configured. Any changes to the JDENET configuration will require restarting the server to take effect.				
Outgoing JDENET Port	(j)	6112	0		
Back Off Time	(i)	30000			
Incoming JDENET Port	٦	6112	0		
Kernel Ranges	(j)	2	0		
Timeout Threshold	(j)	90000			
Pool Size	(j)	50	0		
				Revert to Defaults	Apply

Below are the settings:

- Outgoing JDENET Port
- Back Off Time
- Incoming JDENET Port
- Kernel Ranges
- Timeout Threshold
- Pool Size

#### 2.3.2 Security Server Configuration

These settings configure the EnterpriseOne Enterprise Server to use for security services for this instance. Any changes you make here will not take effect until the server is restarted.

Security Server Configuration				(	Return	To Top
These settings configure the EnterpriseOne enterprise server to use	for se	curity services for this instance. Any changes made will not take effect until t	the	instance is restarted.		
Security Server Count	<u>(</u>	1	6			
Primary Security Server	ſ	den60204jems				
Secondary Security Server	١	NONE				
Third Security Server	١	NONE				
Fourth Security Server	٦	NONE				
Fifth Security Server	(i)	NONE				
				Revert to Defaults		VlggA

#### Below are the settings:

- Security Server Count
- Primary Security Server
- Secondary Security Server
- Third Security Server
- Fourth Security Server
- First Security Server

#### 2.4 Log File Configuration (jdelog.properties)

This section is used to configure logs. You may add, remove, or configure the log files contained within this section. You must click the **Apply** button on this form to save any changes made to this Log Configuration section.

- L	og File Configu	ration						
Show	below are the k	og configurations found in the jdelog.properties for this instance. You may add, i	remove, or configure the log files contained within.					
It is n	ecessary to click	the Apply button below this form to save the changes made to the Log Configuration.						
Sel	ect [Log Config	uration]: Delete						
Sel	ect All   Select N	<u>906</u>						
	Log Name ↓ ∫i)	Log File Name	Log Level Threshold	Log Format 🕕	Append Log Max Files Size	c Log	Max. Backup Index (j)	Log Components
	E1LOG	Z:\jde_home\SCFHA\targets\RTESERVER\logs\e1root.log	Warnings and Recoverable Errors	Application Format	TRUE 10	ИВ	20	ALL IB
	Create Nev	v Log Configuration						
					Apply			

## **Configuring JD Edwards EnterpriseOne**

After configuring your Transaction Server, you must set up the Transaction Server Components data for your JD Edwards EnterpriseOne environments to properly generate events.

This chapter discusses:

- Section 3.1, "Verifying User Defined Codes (UDCs)"
- Section 3.2, "Verifying Tables"
- Section 3.3, "Verifying Serialized Objects"
- Section 3.4, "Activating Events"
- Section 3.5, "Creating Triggers"

#### 3.1 Verifying User Defined Codes (UDCs)

The Transaction Server Components requires the specific User Defined Codes (UDCs) to be populated as shown in this table.

**Note:** By default, the UDCs are delivered and populated correctly. The information in this section is only provided for verification purposes.

UDC	Purpose
H90/EC	Event Category
H90/TP	Event Transport Parameter Type

#### 3.2 Verifying Tables

The Transaction Server Components requires the use of the tables listed below. The default configuration for RTE is where all of the F907\* tables (event tables) reside in one datasource. Out of the box these tables are included in the System datasource database (that is, SY910). Using this default configuration, only one Transaction Server may be configured to monitor the F907\* tables. Verify that these tables were created in the JD Edwards EnterpriseOne environments that will generate Real Time Events (RTE) events. Ensure that the server map OCMs and client map OCMs point to the same set of tables.

Table	Description
F90701	Interoperability Event Definition
F90705	Event Activation
F90706	Event Subscriber
F90707	Event Subscription
F907071	Subscribed Events
F907072	Subscribed Environments
F90708	Event Sequence
F90710	Event Transfer
F90711	Event Transport Parameters
F90712	Event Transfer Failure
F90715	Event Subscriber Queues
F90720	Event Metrics
F90730	Unique Sequence

#### 3.3 Verifying Serialized Objects

Serialized objects for tables, specs, and data structures must exist on the database machine. Verify that the serialized objects have been generated and copied to the database machine. For more information on performing the generation, see the *JD Edwards EnterpriseOne HTML Web Server Reference Guide*, specific for your platform, and the *Generating JD Edwards EnterpriseOne Serialized Objects* chapter.

#### 3.4 Activating Events

Using this procedure, you must use JD Edwards EnterpriseOne universal batch engine (UBE) processes to convert the existing event data to be compatible with the new tables.

1. Run the Populate Event Activation Status Table (R90705) to create an activation record for every environment for every event defined in the F90701 table. Through use of the processing options you can process this UBE for all events and all environments or for a single event and/or environment. You can run this UBE multiple times if necessary.

Processing Options	×
Create Event Activation Rules	,
Specify the event name to create records for:	
Note: Leaving this field blank will create records for all events. If this field is not blank, records will only be created for the specified event name regardless of what is specified in the event type specification.	
Specify the interoperability event type to create records for:	
Note: Leaving this field blank will create records for all event types.	
Specify the release of the environments that records are to be created for:	
Note: Leaving this field blank will create records for all environments.	
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#### 2. On Processing Options, Create Event Activation Rules, complete these fields:

Field	Description		
Specify the event name to create records for:	If you leave this field blank, records are created for all events. If you specify a value for this field, records are only created for the specified event name regardless of what is specified in the event type specification.		
Specify the interoperability event type to create records for:	If you leave this field blank, records are created for all event types. Valid event types are:		
	• RTE		
	• WF		
	<ul> <li>XAPI</li> </ul>		
	<ul> <li>ZFILE</li> </ul>		
Specify the release of the environments that records are to be create for:	If you leave this field blank, records are created for all environments. Values are supported releases of JD Edwards EnterpriseOne, specified by internal designations.		

**Note:** You may use data selection to select on events that are currently active in the event system to convert.

**3.** Run the Convert Event Subscriptions (R90706) UBE to populate the Queue Assignment Table (F90715) with the subscriber queues defined in the Transaction

Server. You can use processing options to initially create your subscriber queue records and convert your subscribers and subscriptions. Later if you add new subscribers you can use this UBE to only create the new subscriber queue records. Initially there are 16 subscriber queues delivered with JD Edwards EnterpriseOne.

**Note:** The R90706 program does not create the subscriber queues. Instead, 16 of these subscriber queues were created during the initial installation of the Transaction Server Components on an Application Server. If you have more than 16 subscribers you will need to create the additional queues using Application Server administrator tools prior to running this program.

Processing Options	×
Conversion Parameters	
Enter the number of subscriber queues to create:	30.00
Enter the description that will be assigned to all converted subscriptions. If this field is left blank the default description will be "Subscription converted by R90706".	
Do not convert subscriptions: Enter a '1' to prevent batch application from converting subscribers and subscriptions. If value is '1' then batch application will only create the number of subscriber queues specified.	
<u> </u>	X <u>C</u> ancel

#### 4. On the Conversion Parameters tab, complete these fields:

Field	Description
Enter the number of subscriber queues to create:	Set this value to the number of subscriber queues for your installation. You must create a queue for every subscriber.
Enter the description that will be assigned to all converted subscriptions. If this field is left blank the default description will be "Subscription converted by R90706".	Enter a value to describe all converted description. If you leave this field blank the default description is "Subscription converted by R90706".

Field	Description
Do not convert subscriptions	Values are:
	0: Convert subscriptions
	1: Do not convert subscribers and subscriptions. The R90706 program only creates the number of subscriber queues that you specify and does not perform any conversions.

**Note:** You may use data selection to select on events that are currently active in the event system to convert.

**5.** Run the Synch Z Events in F47002 with F90701 (R90701A) UBE to create event records in the F90701 for the z-event records in the F47002 table for records that do not currently exist in the F90701 table. There are no processing options for this UBE.

#### 3.5 Creating Triggers

You must create a trigger on the F90710 table. Prior to running the trigger creation script, ensure that you have adequate database privileges required to create a trigger. This table lists the privileges by database.

**Note:** Additionally, as described in the Prerequisites sections of this guide, you must obtain and install a specific ESU to enable the creation of triggers for Transaction Server Components.

Database	Required Privilege		
IBM DB2 for System i	No special privileges are required.		
IBM DB2	Grant the following privileges to the database proxy user. Replace jde in the following script with the actual database proxy user name.		
	GRANT CONTROL ON TABLE SY900.F90710 TO USER jde		
Oracle	Grant the following privileges to the JDE_ROLE or the database proxy user.		
	GRANT CREATE ANY SEQUENCE TO JDE_ROLE; GRANT DROP ANY SEQUENCE TO JDE_ROLE; GRANT CREATE ANY TRIGGER TO JDE_ROLE; GRANT DROP ANY SEQUENCE TO JDE_ROLE;		
SQL Server	The database proxy user must have the privileges to create database triggers. Replace jde with the actual database proxy user name.		
	Exec sp_addrolemember db_owner, jde		

You must create the (F90710) Event Transfer and the (F90730) Unique Sequence in the same JD Edwards EnterpriseOne data source. You should verify this configuration using OCM.

1. Run this script from a JD Edwards EnterpriseOne Microsoft Windows-based Web Development Client:

x:\JDEdwards\E900\system\bin32\dbtemplates.exe -create

**2.** After the scripts complete successfully, you should revoke any special privileges you granted in order to create the triggers. This table lists the revocation commands by database.

Database	Required Privilege			
IBM DB2 for System i	DB2 for No special privileges are required. em i			
IBM DB2	Revoke the following privileges to the database proxy user. Replace			
	jde in the following script with the actual database proxy user name.			
	REVOKE CONTROL ON TABLE SY900.F90710 TO USER jde			
Oracle	Revoke the following privileges to the JDE_ROLE or the database proxy user.			
	REVOKE CREATE ANY SEQUENCE TO JDE_ROLE; REVOKE DROP ANY SEQUENCE TO JDE_ROLE; REVOKE CREATE ANY TRIGGER TO JDE_ROLE; REVOKE DROP ANY SEQUENCE TO JDE_ROLE;			
SQL Server	erver Replace jde with the actual database proxy user name. exec sp_droprolemember db_owner, jde			

### Configuring Subscribers in JD Edwards EnterpriseOne

This chapter discusses the configuration of JMS Queue and JMS Topic subscribers in JD Edwards EnterpriseOne.

This chapter includes these tasks:

- Section 4.1, "Prerequisites"
- Section 4.2, "Configuring Subscriber JMS Queue/Topic in WebSphere Application Server"
- Section 4.3, "Creating JMS Queues in a Transaction Server container Installed in WebSphere Application Server"
- Section 4.4, "Creating JMS Queues in WebSphere Using a Non-Transaction Server Container"

#### 4.1 Prerequisites

These prerequisites must be met prior to configuring JMS topic in JD Edwards EnterpriseOne and WebSphere:

- Your WebSphere Application Server must be installed. Supported versions of WebSphere are listed in the Certifications. For instructions on accessing Certifications, refer to the chapter of this guide entitled: Section 1.2, "Certifications (Formerly Known as Minimum Technical Requirements)".
- The JD Edwards EnterpriseOne Transaction Server components are installed, deployed, and functioning properly. You can use Server Manager to perform these tasks.
- Your WebSphere Application Server must be configured for the corresponding JMS Queue/Topic as described in the following tasks in this section entitled: Section 4.2, "Configuring Subscriber JMS Queue/Topic in WebSphere Application Server".

# 4.2 Configuring Subscriber JMS Queue/Topic in WebSphere Application Server

JD Edwards EnterpriseOne supports JMSQUEUE and JMSTOPIC subscribers of JMS type. To use these subscribers, you must create an appropriate Queue and Topic in the WebSphere Application Server. It is recommended that you create the Queue and Topic in a container other than the RTE Server container; however subscriber Queue and Topic on RTE Server container is also supported.

# 4.3 Creating JMS Queues in a Transaction Server container Installed in WebSphere Application Server

To create a JMS queue in a Transaction Server container installed in WebSphere Application Server:

- 1. Start the Transaction Server from the Server Manager Management Console.
- 2. Open the WebSphere Administrative Console.
- 3. Expand the **Resources** node in the left panel.
- 4. Expand the JMS node.
- 5. Click the link for JMS Providers.
- 6. Click the Default messaging provider whose scope contains this value:

#### server=RTE\_Container

7. Under Additional Properties, click Queue connection factories.

The following sequence of screens shows the fields and values on the **JMS providers** screen in WebSphere:

figuration	
General Properties	The additional properties will not be available until the general properties this item are applied or saved.
Scope	Additional Properties
Node=mcipolla-vm5Node04,Server=TRE_Temp	
	<ul> <li>Connection pool properties</li> </ul>
Provider Default messaging provider	
Deraut messaging provider	Related Items
* Name	Neidley Atems
TestQueueConnectionFactory	JAAS - J2C authentication data
* JNDI name	Buses
ims/TestQueueConnectionFac	
Description	
Category	
Connection	
Bus name     ORABus-RTE_TMP	
Target	

Target inbound transport chain
Provider endpoints
Connection proximity Bus
Quality of Service
Nonnersistent message reliability
Express nonpersistent
Persistent message reliability Reliable persistent
Kellable persistent
Advanced Messaging
Read ahead
Default 💌
Temporary queue name prefix
Pass message payload by reference
Pass message payload by reference
Pass message payload by reference  Applications using this Connection Factory to send messages:  do not modify the data Object contained in a IMS Object Message
Pass message payload by reference Applications using this Connection Factory to send messages: - do not modify the data Object contained in a JMS Object Message - populate a JMS Bytes Message using a single call to writeBytes(byte[]) and do not
Pass message payload by reference Applications using this Connection Factory to send messages: - do not modify the data Object contained in a JMS Object Message - populate a JMS Bytes Message using a single call to writeBytes(byte[]) and do not modify the byte array once it is contained in the message. Read the help before coloring this point.
<ul> <li>Pass message payload by reference</li> <li>Applications using this Connection Factory to send messages:</li> <li>do not modify the data Object contained in a JMS Object Message</li> <li>populate a JMS Bytes Message using a single call to writeBytes(byte[]) and do not modify the byte array once it is contained in the message. Read the help before selecting this option.</li> </ul>
Pass message payload by reference         □       Applications using this Connection Factory to send messages:         - do not modify the data Object contained in a JMS Object Message         - populate a JMS Bytes Message using a single call to writeBytes(byte[]) and do not modify the byte array once it is contained in the message. Read the help before selecting this option.         □       Applications using this Connection Factory to receive messages:
<ul> <li>Pass message payload by reference</li> <li>Applications using this Connection Factory to send messages:</li> <li>do not modify the data Object contained in a JMS Object Message</li> <li>populate a JMS Bytes Message using a single call to writeBytes(byte[]) and do not modify the byte array once it is contained in the message. Read the help before selecting this option.</li> <li>Applications using this Connection Factory to receive messages:</li> <li>do not modify the data Object obtained from a JMS Object Message. The data Object is the paid the belp before using the paid the belp before using the paid the paid to be paid the paid to be paid the belp before.</li> </ul>
<ul> <li>Pass message payload by reference</li> <li>Applications using this Connection Factory to send messages:</li> <li>do not modify the data Object contained in a JMS Object Message</li> <li>populate a JMS Bytes Message using a single call to writeBytes(byte[]) and do not modify the byte array once it is contained in the message. Read the help before selecting this option.</li> <li>Applications using this Connection Factory to receive messages:</li> <li>do not modify the data Object obtained from a JMS Object Message. The data Object is treated as read only. Read the help before selecting this option.</li> </ul>
<ul> <li>Pass message payload by reference</li> <li>△ Applications using this Connection Factory to send messages:</li> <li>- do not modify the data Object contained in a JMS Object Message</li> <li>- populate a JMS Bytes Message using a single call to writeBytes(byte[]) and do not modify the byte array once it is contained in the message. Read the help before selecting this option.</li> <li>△ Applications using this Connection Factory to receive messages:</li> <li>- do not modify the data Object obtained from a JMS Object Message. The data Object is treated as read only. Read the help before selecting this option.</li> </ul>
Pass message payload by reference         □       Applications using this Connection Factory to send messages:         - do not modify the data Object contained in a JMS Object Message         - populate a JMS Bytes Message using a single call to writeBytes(byte[]) and do not modify the byte array once it is contained in the message. Read the help before selecting this option.         □       Applications using this Connection Factory to receive messages:         - do not modify the data Object obtained from a JMS Object Message. The data Object is treated as read only. Read the help before selecting this option.
Pass message payload by reference <ul> <li>Applications using this Connection Factory to send messages:</li> <li>do not modify the data Object contained in a JMS Object Message</li> <li>populate a JMS Bytes Message using a single call to writeBytes(byte[]) and do not modify the byte array once it is contained in the message. Read the help before selecting this option.</li> <li>Applications using this Connection Factory to receive messages:</li> <li>do not modify the data Object obtained from a JMS Object Message. The data Object is treated as read only. Read the help before selecting this option.</li> </ul> <li>Advanced Administrative         <ul> <li>Log missing transaction contexts</li> </ul> </li>
Pass message payload by reference <ul> <li>Applications using this Connection Factory to send messages:</li> <li>do not modify the data Object contained in a JMS Object Message</li> <li>populate a JMS Bytes Message using a single call to writeBytes(byte[]) and do not modify the byte array once it is contained in the message. Read the help before selecting this option.</li> <li>Applications using this Connection Factory to receive messages:</li> <li>do not modify the data Object obtained from a JMS Object Message. The data Object is treated as read only. Read the help before selecting this option.</li> </ul> <li>Advanced Administrative         <ul> <li>Log missing transaction contexts</li> <li>Message method headles</li> </ul> </li>
Pass message payload by reference         Applications using this Connection Factory to send messages:         - do not modify the data Object contained in a JMS Object Message         - populate a JMS Bytes Message using a single call to writeBytes(byte[]) and do not modify the byte array once it is contained in the message. Read the help before selecting this option.         Applications using this Connection Factory to receive messages:         - do not modify the data Object obtained from a JMS Object Message. The data Object is treated as read only. Read the help before selecting this option.         Advanced Administrative         Log missing transaction contexts         Manage cached handles
Pass message payload by reference         Applications using this Connection Factory to send messages:         - do not modify the data Object contained in a JMS Object Message         - populate a JMS Bytes Message using a single call to writeBytes(byte[]) and do not modify the byte array once it is contained in the message. Read the help before selecting this option.         Applications using this Connection Factory to receive messages:         - do not modify the data Object obtained from a JMS Object Message. The data Object is treated as read only. Read the help before selecting this option.         Advanced Administrative         Log missing transaction contexts         Manage cached handles         Share data source with CMP
Pass message payload by reference <ul> <li>Applications using this Connection Factory to send messages:</li> <li>do not modify the data Object contained in a JMS Object Message</li> <li>populate a JMS Bytes Message using a single call to writeBytes(byte[]) and do not modify the byte array once it is contained in the message. Read the help before selecting this option.</li> <li>Applications using this Connection Factory to receive messages:</li> <li>do not modify the data Object obtained from a JMS Object Message. The data Object is treated as read only. Read the help before selecting this option.</li> </ul> <li>Advanced Administrative         <ul> <li>Log missing transaction contexts</li> <li>Manage cached handles</li> <li>Share data source with CMP</li> </ul> </li>
Pass message payload by reference <ul> <li>Applications using this Connection Factory to send messages:</li> <li>do not modify the data Object contained in a JMS Object Message</li> <li>populate a JMS Bytes Message using a single call to writeBytes(byte[]) and do not modify the byte array once it is contained in the message. Read the help before selecting this option.</li> <li>Applications using this Connection Factory to receive messages:</li> <li>do not modify the data Object obtained from a JMS Object Message. The data Object is treated as read only. Read the help before selecting this option.</li> </ul> <li>Advanced Administrative         <ul> <li>Log missing transaction contexts</li> <li>Manage cached handles</li> <li>Share data source with CMP</li> </ul> </li>
Pass message payload by reference <ul> <li>Applications using this Connection Factory to send messages:</li> <li>do not modify the data Object contained in a JMS Object Message</li> <li>populate a JMS Bytes Message using a single call to writeBytes(byte[]) and do not modify the byte array once it is contained in the message. Read the help before selecting this option.</li> <li>Applications using this Connection Factory to receive messages:</li> <li>do not modify the data Object obtained from a JMS Object Message. The data Object is treated as read only. Read the help before selecting this option.</li> </ul> <li>Advanced Administrative         <ul> <li>Log missing transaction contexts</li> <li>Manage cached handles</li> <li>Share data source with CMP</li> </ul> </li> <li>Security settings         <ul> <li>Select the authentication values for this resource.</li> </ul> </li>
Pass message payload by reference <ul> <li>Applications using this Connection Factory to send messages:</li> <li>do not modify the data Object contained in a JMS Object Message</li> <li>populate a JMS Bytes Message using a single call to writeBytes(byte[]) and do not modify the byte array once it is contained in the message. Read the help before selecting this option.</li> <li>Applications using this Connection Factory to receive messages:</li> <li>do not modify the data Object obtained from a JMS Object Message. The data Object is treated as read only. Read the help before selecting this option.</li> </ul> <li>Advanced Administrative         <ul> <li>Log missing transaction contexts</li> <li>Manage cached handles</li> <li>Share data source with CMP</li> </ul> </li> <li>Security settings         <ul> <li>Select the authentication values for this resource.</li> <li>Authentication alias for XA recovery</li> </ul> </li>
Pass message payload by reference <ul> <li>Applications using this Connection Factory to send messages:</li> <li>do not modify the data Object contained in a JMS Object Message</li> <li>populate a JMS Bytes Message using a single call to writeBytes(byte[]) and do not modify the byte array once it is contained in the message. Read the help before selecting this option.</li> <li>Applications using this Connection Factory to receive messages:</li> <li>do not modify the data Object obtained from a JMS Object Message. The data Object is treated as read only. Read the help before selecting this option.</li> </ul> <li>Advanced Administrative         <ul> <li>Log missing transaction contexts</li> <li>Manage cached handles</li> <li>Share data source with CMP</li> </ul> </li> <li>Security settings         <ul> <li>Select the authentication values for this resource.</li> <li>Authentication alias for XA recovery</li> </ul> </li>
Pass message payload by reference <ul> <li>Applications using this Connection Factory to send messages:</li> <li>do not modify the data Object contained in a JMS Object Message</li> <li>populate a JMS Bytes Message using a single call to writeBytes(byte[]) and do not modify the byte array once it is contained in the message. Read the help before selecting this option.</li> <li>Applications using this Connection Factory to receive messages:</li> <li>do not modify the data Object obtained from a JMS Object Message. The data Object is treated as read only. Read the help before selecting this option.</li> </ul> <li>Advanced Administrative         <ul> <li>Log missing transaction contexts</li> <li>Manage cached handles</li> <li>Share data source with CMP</li> </ul> </li> <li>Security settings         <ul> <li>Select the authentication values for this resource.</li> <li>Authentication alias for XA recovery</li> <li>Manping-configuration alias</li> </ul> </li>
Pass message payload by reference <ul> <li>Applications using this Connection Factory to send messages:</li> <li>do not modify the data Object contained in a JMS Object Message</li> <li>populate a JMS Bytes Message using a single call to writeBytes(byte[]) and do not modify the byte array once it is contained in the message. Read the help before selecting this option.</li> <li>Applications using this Connection Factory to receive messages:</li> <li>do not modify the data Object obtained from a JMS Object Message. The data Object is treated as read only. Read the help before selecting this option.</li> </ul> <li>Advanced Administrative         <ul> <li>Log missing transaction contexts</li> <li>Manage cached handles</li> <li>Share data source with CMP</li> </ul> </li> <li>Security settings         <ul> <li>Select the authentication values for this resource.</li> <li>Authentication alias for XA recovery</li> <li>Incone)</li> </ul> </li>

Container-managed authentication alias

**8.** On the WebSphere **Queue Connection Factories** page, click the **New** button and complete these fields:

Field	Value
Name	TestQueueConnectionFactory
JNDI Name	jms/TestQueueConnectionFactory
Bus name	Select the Bus name created for Transaction Server.

- **9.** Click OK to save the details.
- **10.** Click **Default messaging provider** in the top breadcrumb.
- **11.** Click **Queues** under **Additional Properties** to view a list of queues available for the Transaction Server.

The following screen shows an example of a Queues screen in WebSphere.

<u> 1MS providers</u> > <u>Default messaging provider</u> > Queues					
A JMS queue is used as a destination for point-to-point messaging.					
E Preferences					
New Delete					
Select	Name 🛟	JNDI name 🗘	Provider 🗘	Description 🗘	Scope 🗘
You o	an administer the fol	lowing resources:			
Г	ESBQueue00	jms/com/peoplesoft/pt/e1/server/enterprise/events/ESBQueue00	Default messaging provider	Subscriber Queue	Node=mcipolla- vm5Node04,Server=TRE_Temp
E.	EventQueue00	jms/com/peoplesoft/pt/e1/server/enterprise/events/EventQueue00	Default messaging provider	Event Processor Queue	Node=mcipolla- vm5Node04,Server=TRE_Temp
Γ.	EventQueue01	jms/com/peoplesoft/pt/e1/server/enterprise/events/EventQueue01	Default messaging provider	Event Processor Queue	Node=mcipolla- vm5Node04,Server=TRE_Temp
Г	EventQueue02	jms/com/peoplesoft/pt/e1/server/enterprise/events/EventQueue02	Default messaging provider	Event Processor Queue	Node=mcipolla- vm5Node04,Server=TRE_Temp
E.	EventQueue03	jms/com/peoplesoft/pt/e1/server/enterprise/events/EventQueue03	Default messaging provider	Event Processor Queue	Node=mcipolla- vm5Node04,Server=TRE_Temp
Г	SourceRouteQueue	jms/com/peoplesoft/pt/e1/server/enterprise/events/SourceRouteQueue	Default messaging provider	Source Route Queue	Node=mcipolla- vm5Node04,Server=TRE_Temp
E.	SubQueue00	jms/com/peoplesoft/pt/e1/server/enterprise/events/SubQueue00	Default messaging provider	Subscriber Queue00	Node=mcipolla- vm5Node04,Server=TRE_Temp
Γ.	SubQueue01	jms/com/peoplesoft/pt/e1/server/enterprise/events/SubQueue01	Default messaging provider	Subscriber Queue01	Node=mcipolla- vm5Node04,Server=TRE_Temp
Е	SubQueue02	jms/com/peoplesoft/pt/e1/server/enterprise/events/SubQueue02	Default messaging provider	Subscriber Queue02	Node=mcipolla- vm5Node04,Server=TRE_Temp
E.	SubQueue03	jms/com/peoplesoft/pt/e1/server/enterprise/events/SubQueue03	Default messaging provider	Subscriber Queue03	Node=mcipolla- vm5Node04.Server=TRE_Temp

**12.** Click the New button and complete the required fields as shown in the following screens:

JMS providers > Default messaging provider > Queues > New A JMS queue is used as a destination for point-to-point messaging. Use JMS queue destination administrative objects to manage messaging provider.	JMS queues for the default
Configuration	
General Properties	-
Administration	Related Items
Node=mcipolla-vm5Node04,Server=TRE_Temp	= buses
Provider	
Derault messaging provider	
TestQueue	
* JNDI name	
jms/TestQueue	
Connection Bus name	
ORABUS-RTE_TMP	
Queue name     Galact	
Time to live milliseconds	
Time to live milliseconds Priority	
Advanced	
Read ahead	
Inherit from connection factory	
Massana control across multiple queue points (supported from WebSohere Application Server V7 onwards)	
Restrict messages to the local queue point if a queue point is configured on the connected messaging engine	
Control across multiple queue points per MessageProducer	
Cocal queue point preference     Prefer to send messages to a local queue point	
O Do not prefer a local queue point over other queue points	
Message aminity across queue points	
Messages may be sent to different queue points	
Control across multiple queue points per MessageConsumer or QueueBrowser Message visibility	
Only messages on a single queue point are visible	
C Messages on all queue points are visible	

**13.** For the **Queue name** field, use the pulldown to select the option **Create Service Integration Bus Destination** as shown in the following screen:

#### <u>JMS providers</u> > <u>Default messaging provider</u> > <u>Queues</u> > New

A JMS queue is used as a destination for point-to-point messaging. Use JMS queue destination administrative objects to manage JMS queues for the default messaging provider.

ieral Properties	Related Iter
Idministration	Related Iter
Select	Buses
SYSTEM.Exception.Destination.mcipolla-vm5Node04.TRE_Temp-ORABus-RTE_TMP	
TriggerQueue	
EventQueue00	
EventQueue01	
EventQueue02	
EventQueue03	
SourceRouteQueue	
ESBQueue00	
SubOueue00	
SubQueue01	
SubOueue02	
SubOueue03	
SubOueue04	
SubOueue05	
SubOueue06	
SubQueue07	
SubOueue08	
SubOueue09	
SubOueue10	
SubOueue11	
SubQueue12	
SubQueue13	
Subjects	
SubQueue15	
Society States State	

After you select **Create Service Integration Bus destination** from the pulldown, the following **Create new queue** dialog is displayed:

Cre	ate new queue		_
c	Create a new queue for point-to-	point messaging.	
	Step 1: Set queue attributes	Set queue attributes	
	Step 2: Assign the queue to a bus member Step 3: Confirm queue creation	Configure the attributes of your new queue	
	Next Cancel		

**14.** On Create New Queue - Step 1: Set queue attributes, enter a value for the required **Identifier** field and click the **Next** button.

Cr	eat	e new queue		
	Cre	ate a new queue for point-to-p	pint messaging.	
		Step 1: Set queue attributes	Assign the queue to a bus member	
	→	Step 2: Assign the queue to a bus member	Assign the queue to a bus member that will store and process the messages for the queue. Bus member Node=mcipolla-vm5Node04:Server=TRE_Temp	
		Step 3: Confirm queue creation		
		Previous Next Cancel		

- **15.** On Create New Queue Step 2: Assign the queue to a bus member, use the pulldown to select The Transaction Server container as the Bus Member.
- **16.** Click the **Next** button.
- **17.** After creating the bus destination, the newly created bus destination is set as the queue name for the configured Queue. The newly created bus destination can be verified by using this navigation:

Service Integration > Buses > <BUS\_NAME> Destinations

**Note:** If any available unused bus destination is available in the Queue list, then it can be selected from the dropdown rather than creating a new bus destination.

**Note:** The values specified in the table below for **Name** and **JDNI name** are samples only. Any unique value can be given. All other values should remain the same as the defaults.

Field	Value
Name	TestQueue
JNDI Name	jms/TestQueue
Queue name	Create Service Integration Bus destination (TestQueue)
Persistence	Persistent

18. Click the OK button to save the settings and view the newly created queue.

# 4.4 Creating JMS Queues in WebSphere Using a Non-Transaction Server Container

To create JMS queues in WebSphere Application Server, perform these tasks:

- Section 4.4.1, "Create the Service Integration Bus (SIB)"
- Section 4.4.2, "Create the JMS Queue Connection Factory"
- Section 4.4.3, "Create the SIB JMS Destinations"

#### 4.4.1 Create the Service Integration Bus (SIB)

To create the Service Integration Bus for the JMS queues:

- 1. Navigate to Service Integration > Buses.
- **2.** Click the **New** button.

Cr	eate a new Service Integration Bu	5	
	Create a new Service Integration B	us.	
	-> Step 1: Create a	Create a new bus	
	(The next step of the wizard depends on decisions made in the current step)	Configure the attributes of your new bus. * Enter the name for your new bus. ORABus	
	Step 2: Confirm create of new bus	Bus security	
	Next Cancel		

3. On Create a new bus, enter this value in the Name field:

ORABus

4. Click the Next button.

Create a new Service Integration Bu	5
Create a new Service Integration E	us.
Step 1: Create a new bus	Confirm create of new bus
→ Step 2: Confirm create of new bus	The following is a summary of your selections. To complete the bus creation, click Finish. If there are settings you wish to change, click Previous to review bus settings.
	Summary of actions: New bus "ORABus" will be created with bus security setting "Disabled".
Previous Finish Cancel	]

5. On Confirm create of new bus, review your changes and click the Finish button.

Buses		?
Buses		
A service integration bus supports applications using servers and clusters that have been added as mem with its bus members.	message-based and service-oriented archite bers of the bus. Applications connect to a bus	ctures. A bus is a group of interconnected at one of the messaging engines associated
Preferences		
New Delete		
Select Name 🛟	Description 🗘	Security 🗘
You can administer the following resources:		
CRABus		Disabled
Total 1		

- **6.** On Buses, click the link for the service integration bus that you just created (in this example, the link is **ORABus**.
- 7. Under Topology, click the Bus Members link.
- 8. Click the Add button.

A	dd a new bus member				1
	Add a server, cluster or a WebSph	ere MQ sen	ver as a new member of the	bus.	
	→ Step 1: Select	Select se	erver, cluster or WebSph	ere MQ server	
	WebSphere MQ server	Choose	the server, cluster or WebSpl	nere MQ server to add to the bus	
	(The next step of the wizard depends on decisions made in the	¢	Server	dndedasvm4Node02:server1	
	current step)	0	Cluster	(none)	
	Step 2: Summary	o	WebSphere MQ server	(none)	
	Next Cancel	-			

- 9. On Add a new bus member, select the Server radio button.
- **10.** Select the default server value **server1** for the server.
- **11.** Click the **Next** button.
- 12. Select Data Store.
- 13. Click the Next button.
- 14. Select Create default data source with generated JNDI name.
- 15. Click the Next button.
- **16.** Select the **Change heap sizes** radio button to modify the heap sizes to the proposed values.

On machines with low amounts of physical memory size or large numbers of application server instances, it may be necessary to reduce the proposed values accordingly.

- **17.** Review your changes and click the **Finish** button.
- **18.** Click the **Save** link at the top of the page to save the changes.

#### 4.4.2 Create the JMS Queue Connection Factory

To create the JMS Queue Connection Factory:

- 1. Navigate to **Resources** > **JMS** and select *JMS Providers*.
- 2. Click the Default Messaging Provider link which includes Server1 in the scope.
- 3. Click Connection Factories.
- 4. Click the New button.

#### <u>JMS providers</u> > <u>Default messaging provider</u> > <u>Queue connection factories</u> > New

A JMS queue connection factory is used to create connections to the associated JMS provider of JMS queues, for point-to-point messaging. Use queue connection factory administrative objects to manage JMS queue connection factories for the default messaging provider.

Configuration

Scope   Node=dndedasvm4Node02   Provider   Default messaging provider   * Name   TestQueueConnectionFactory   > JNDI name   jms/TestQueueConnectionFactory   Description   Category   Category   * Bus name   ORABus   Target   Target type   Messaging engine name	Administration	this item are applied or saved.
Node=dndedasym4Node02   Provider   Default messaging provider   Name   TestQueueConnectionFactory   Doscription   Category   Connection   Bus name   ORABus   Target   Messaging engine name	Scope	Additional Properties
Provider   Default messaging provider     Name   TestQueueConnectionFactory     JNDI name   jms/TestQueueConnectionFactory     Description     Category   Connection Bus name ORABus Target Target Messaging engine name	Node=dndedasvm4Node02	E Connection and properties
Default messaging provider   Name   TestQueueConnectionFactory   JNDI name   jms/TestQueueConnectionFac   Description   Category   Category   ORABus   ORABus   Target   Messaging engine name   Messaging engine name	Provider	<ul> <li>Connection properties</li> </ul>
Name   TestQueueConnectionFactory     JNDI name   jms/TestQueueConnectionFac     Description     Category   Connection Bus name ORABus V Target V Messaging engine name V	Default messaging provider	
TestQueueConnectionFactory   JNDI name   jms/TestQueueConnectionFac   Description   Category   Category   ORABus   Target   ORABus   Target type   Messaging engine name	Name	Related Items
JNDI name jms/TestQueueConnectionFac Description Category Category Connection Bus name ORABus Target Target Messaging engine name Messaging engine name	TestQueueConnectionFactory	JAAS - 12C authentication data
JNDI name   jms/TestQueueConnectionFac   Description   Category   Category   Connection   Bus name   ORABus   Target   Image Im		
Description Category Connection Bus name ORABus Target Tar	JNDI name	= DUSES
Description  Category  Connection Bus name ORABus Target Target Target type Messaging engine name	jms/ restQueueConnectionFac	
Category Connection Bus name ORABus Target Target Target Messaging engine name	Description	
Category Connection Bus name ORABus Target Target Target Messaging engine name		
Category Connection Bus name ORABus Target Target Target Messaging engine name		
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Connection Bus name ORABus Target Target Target type Messaging engine name		
Connection Bus name ORABus Target Target Target type Messaging engine name	Category	
Connection Bus name ORABus Target Target Target type Messaging engine name		
Connection Bus name ORABus Target Target Target type Messaging engine name		
Connection       Bus name       ORABus       Target       Target type       Messaging engine name		
Bus name ORABus  Target Target Target type Messaging engine name	Connection	
Target Target type Messaging engine name	Bus name	
Target Target type Messaging engine name	UKABUS V	
Target type Messaging engine name	Target	
Target type Messaging engine name		
Messaging engine name	Target type	
	Messaging engine name	
Target inbound transport chain		
---		
Descrites and exists		
Provider endpoints dndedasvm4:7276:BootstrapBasicMessaging		
Connection proximity Bus		
Quality of Service		
Nonpersistent message reliability Express nonpersistent		
Reliable persistent		
Advanced Messaging		
Read ahead Default		
Temporary queue name prefix		
Pass message payload by reference		
Applications using this Connection Factory to send messages: do not modify the data Object contained in a JMS Object Message populate a JMS Bytes Message using a single call to writeBytes(byte[]) and do not modify the byte array once it is contained in the message. Read the help before selecting this option.		
Applications using this Connection Factory to receive messages: do not modify the data Object obtained from a JMS Object Message. The data Object is treated as read only. Read the help before selecting this option.		
Advanced Administrative		
Log missing transaction contexts		
Manage cached handles		
Share data source with CMP		
Security settings		
select the authentication values for this resource.		
Authentication alias for XA recovery		
Mapping-configuration alias DefaultPrincipalMapping		

5. On Queue connection factories, New, complete these fields:

Field	Value
Name	ESBQueueConnectionFactory
JNDI name	jms/ESBQueueConnectionFactory
Bus name	ESBBus
Target Type	Messaging Engine Name
Provider end points	<system-name>:7276:BootstrapBasicMessaging</system-name>

Field	Value
Connection Proximity	Bus

**Note:** Leave the default value for the rest of the parameters.

- **6.** Click the **OK** button.
- 7. Click the **Save** link at the top of the page to save the changes.

#### 4.4.3 Create the SIB JMS Destinations

To create the JMS queue destinations:

- **1.** Navigate to Service Integration > Buses.
- 2. Click the **ORABus** link.
- 3. Under Destination Resources, click Destinations.
- 4. Click the New button.

Step 1: Set queue	Set queue attributes	
Step 2: Assign the queue to a bus member	Configure the attributes of your new queue Identifier TestQueue	
Step 3: Confirm queue creation	Description	

- 5. On Step 1: Set queue attributes, in the Identifier field, enter TestQueue.
- 6. Click the Next button.

Cr	eate new queue		
	Create a new queue for point-to-po	bint messaging.	
	Step 1: Set queue attributes	Assign the queue to a bus member	
	→ Step 2: Assign the Specie to a bus member	Assign the queue to a bus member that will store and process the messages for the queue. Bus member Node=dndedasvm4Node02:Server=server1 💌	
	Step 3: Confirm queue creation		
	Previous Next Cancel		

- **7.** On Step 2: Assign queue to a bus member, use the pulldown to assign the queue to a bus member.
- **8.** Click the **Next** button.

Cre	Create new queue							
(	Create a new queue for point-to-p	oint messaging.						
	Step 1: Set queue	Confirm queue creation						
	Step 2: Assign the queue to a bus member Step 3: Confirm queue creation	To complete creation of the queue, click Finish. If you want to change any selections, click Previous. Summary of actions: New queue "TestQueue" will be created. A Queue point for "TestQueue" will be created for bus member "dndedasvm4Node02:serve r1" of bus "ORABus".						
	Previous Finish Cancel	]						

- **9.** On Step 3: Confirm queue creation, click the **Finish** button.
- **10.** Click the **Save** link at the top of the page to save the changes.

## Adding a Subscriber

This chapter discusses these tasks:

- Section 5.1, "Setting Processing Options for Event Subscribers Application (P90702A)"
- Section 5.2, "Using Event Subscribers Application to Add a Subscriber"

## 5.1 Setting Processing Options for Event Subscribers Application (P90702A)

This section discusses how to set up the default values for the processing option.

To set Processing Options for P90702A:

- **1.** Type IV in the *Fast Path*.
- **2.** Type P90702A in the *Interactive Application* and click *Find*.

Interactive V	ſe	rsions	- [Wo	k Wit	h Intera	ctive V	/ersion	s]								# <b>(</b>	loogle	Q	- 0			a 🗙
Ele Edit Bre	ste	rences	Form	Row	Window	Heip																a x
Tools	]	Select	Find	Add	В Сору	1 Del	× <u>C</u> lose	1 Seg	New	Dis	Abo	Links	× A	II Ver	DLE	🔊 int	ernet					
Row		Intera	active A	pplicat	tion			P	90702/	Ą	_2								-			
Options				_														_			_	
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Detail Print Options		v	ersion					v	ersion	Title					Use	a	Last Modified		Secu	rity		
Detail Print Options Run		v	ersion					v	'ersion	Title					Use	r	Last Modified		Secu	rity		

**3.** Select the row that appears in the grid and then click *Processing Options* from *Row* menu.

Interactive	Versions - [Work	With Interactive Version	ons]		[## <b>(</b>	Google (		
Ele Edit B	Preferences Form Br	ow <u>Wi</u> ndow <u>H</u> elp						- 8 ×
Tools	Select Find	💠 🗈 🧃 🗙 Add Copy Del <u>C</u> los	a Seg <u>N</u> ew Dis	Abo Links 🔻 All Ver	OLE 💿 Int	ernet		
Row	Interactive App	plication	P90702A	Interoperability 8	Event Subscription			
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Version								
- Cetani	Version		Version Title		User	Last Modified	Security	
Print	ZJDE0001	Interoperability Event S	Subscription		JDE	10/30/2006	0	No Security
Options Run								
Run HTML								

4. On *Processing Options*, edit the default values and click OK.

Processing Options	
OK Cancel	
✓ ×	
JMSQUEUE	
Oracle Application Server Initial Context Factory	com.evermind.server.rmi.RMIIni
Oracle Application Server Local Provider URL	ormi://localhost:23791
Oracle Application Server Remote Provider URL	ormi://remote-machine-name:23
Websphere Initial Context Factory	com.ibm.websphere.naming.Wsr
Websphere Local Provider URL	corbaloc:iiop:localhost:2809
Websphere Remote Provider URL	corbaloc:remote-machine-name:
Weblogic Initial Context Factory	weblogic.jndi.WLInitialContextFa
Weblogic Local Provider URL	t3://localhost:7001
Weblogic Remote Provider URL	t3://remote-machine-name:7001

**Note:** The values for these processing options are set by using an EnterpriseOne application as described in the next section of this chapter in the section entitled: Section 5.2, "Using Event Subscribers Application to Add a Subscriber".

=

#### 5.2 Using Event Subscribers Application to Add a Subscriber

This section discusses how to add a subscriber to EnterpriseOne by executing the application P90702A.

To use P90702A to add a JMSQUEUE or JMSTOPIC subscriber:

**1.** Run the application P90702A from JAS.

👰 Event Subscribers - Microsoft Ir	ternet Explorer		_ 8 ×
Ele Edit View Favorites Iook	Help		27
🕒 Back 🔹 🛞 🤟 📓 🔮	🌡 🔎 Search 🤺 Favorites 🛷 🔗 🌭 💓	- 🔜 📖 🙏 🦓	
Address i http://eind-fndxpi-1:85/)	e/E1Menu.maf		💌 🔁 😡
ORACLE			Sign Out
EnterpriseOne Menu 🛛 😫 🖃	Event Subscribers		i 2 🛚 🔁
Open Applications: - Event Subscribers New Window	Select Find Add Close Form Row Tools		
Fast Path: P90702A	C All Subscribers	Active Subscribers	
Roles: SYSADMIN	No records found.	Customize Grid 🖻 🔳	
Submit Job     Mew Job Status     Favorites     Fad-User Tasks     End-User Tasks     End-User Tasks     End-User Tasks     End-User Tasks     Dend-User Tasks	Subscriber Description	Activation Transport Status Type	

2. Click the *Add* button. Enter the values as per any one of the following options:

Add Event Subscriber - Microsoft	Internet Explorer		_8×
Ele Edit View Favorites Icols	Help		20
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Address a http://e1nd-fndxpi-1:85/jde	e/E1Menu.maf		ا 🔁 💌
ORACLE'			
EnterpriseOne Menu 🛛 🗖	Add Event Subscriber		
Open Applications: 😳	QK Cancel Iools		
- Add Event Subscriber			
NewWindow			_
p90702a	Subscriber	JDE	
Roles: SYSADMIN	Subscriber Description	Sample Description	
- Cubrelt Job			_
- View Job Status			
D End-User Tasks	Transport Type	JMSQUEUE	
D End-User Tasks			_
D End-User Tasks D End-User Tasks D Mobile Sales Menus	Connection Factory JNDI Name	jms/com/peoplesoft/pt/e1/server/enterprise/events/ESBQue	
<ul> <li>EnterpriseOne Menus</li> <li>Content Development</li> </ul>	Óuqua Nama		
Tools > Power User Tasks	adecervanie	jms/com/peopleson/pre1/server/enterpnse/events/ESBSut	
- My System Options - My System Profile	Message Format	XML XML Format	
- Work With Item Manager	Application Server	WEBSPHERE IBM Websphere App Server	
- (1988)	Queue Location	LOCAL Local	
	Initial Context Factory	com.ibm.websphere.naming.WsnInitialContextFactory	
	Provider URL	corbaloc:;e1nd-fndxpi-1.peoplesoft.com:2812/NameServiceServ	
<ul> <li>Done</li> </ul>			cal intranet

The Initial Context Factory and Provider URL values are populated based on the selections for Application Server and Queue Location. Edit these values according to the environment. A processing option determines the default values.

The values for **Connection Factory JNDI Name** and **Queue Name** are the JNDI name for the subscriber Queue or Topic that is being created.

## **Troubleshooting Real Time Events Processing**

This chapter discusses troubleshooting Real Time Events processing.

**Problem:** There are some events in the table F90710 which are not getting picked up by the RTE server.

**Resolution:** Check if the event sequence number stored in the table F90708 is greater than lowest event sequence number available in table F90710. In this case the event sequence number in table F90708 must be reset to 0 manually

Problem: Some of the clustered servers are not processing events.

**Resolution:** Probably some servers in the cluster are having some problem. Refer the app server log to identify the problem, rectify the problem and restart the cluster.

**Resolution:** There could be very high number of events processed exceeding the filestore size. It is advisable to consume events while they are being produced and processed. This keeps the filestore clean.

**Problem:** Getting error in the RTE Server on WAS (Failed to send committed event message: CWSIA0053E: An exception was received during the call to the method JmsSessionImpl.getTransaction (#1): javax.resource.spi.IllegalStateException: CWSJR1121E: An internal error has occurred. During the call to the method getManagedConnection the exception javax.resource.spi.ResourceAllocationException: CWSJR1028E: An internal error has occurred. The exception com.ibm.ws.sib.processor.exceptions.SIMPConnectionUnavailableException)

**Resolution:** One of the messaging engines is down and unable to process event. This should not be a concern since the failover service is active and event will be processed by other available messaging engines, assuming they are available.

Problem: Error message "JNDI lookup of Queue failed" seen in RTE server log.

**Resolution:** It is likely that the JNDI resources are not loaded yet. This error most commonly occurs when auto migration is enabled. A retry lookup feature exists which will try to lookup until successful. If the problem persists, then check the application server log

**Problem**: All the messages are being sent to a single queue in a cluster or not evenly distributed.

**Resolution**: A failover may have occurred and the Queue configuration has been changed due to failover. Stop the clustered servers, modify the configuration as stated in this document and start the cluster to process events.

7

## Upgrading the Transaction Server RTE Software Component Using Server Manager

Use this procedure to upgrade the Transaction Server RTE component that was installed using Server Manager.

- **1.** Obtain the RTE software component to which you wish to upgrade from Oracle eDelivery.
- 2. Place the new RTE component into this folder:

<AGENT\_LOC>\components

- 3. Log on to the Server Manager console.
- **4.** Click on the RTE instance.

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Antoport College 9 . Profestion	an palawa an (typ, perifyr) a	
	EnterpriseOne Transaction Server: WASRTE	
Concentration Descriptions from announces intern thermost James intern James All James All James Status Concentrations	General Software Component Version EnterpriseOne RTE Sarver 9.1.0.8 08-03-2011_02_02 Change	Instance Properties Instance Remme III WARPEL HTTP Part 7002 Application Server Instance WERPENDER Linet Complements Instance WERPENDERE, Profes Deput), Cluster CTI
Instance Information		Software Component
Active 2HI Court (1)	Landah (ay Res	2000/2000/01111-01/071-01-000-00200/0011_000_000
* Bullinster	Testes Law Bodiet Utites Of Library P. 24 Bases Of Millions Of Library Of Library	
Transaction Server Advan	As ing the over fluid.	
Faled Events     Subcriters     Event Metrics		

5. In the Software Component Version section, click the **Change** button.

ORACLE JD Edwards	EnterpriseOne		Kerner Manager Docum Enterprise/Dec Docum
Respond Saltard P. Dortolla val pider	demo/concentration		
Select Instance	EnterpriseOne Transaction Server: WASRTE		
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Instance Information Autor (Information 9 9 9 4 Autor Value 1  Provide Tables  Foundation Server Advan  Foundation	○ Anoshabite Leag Prime : Depiny Leag Headfield Weber ○ 3 Moure ③ 24 Neuros ○ 48 Moures ○ 4 Week ○ No by Res were Road.	Aled the off-wave comparent that you used to use.  Example of the off-section off-section of the off-section	

- **6.** On the Change Tools Release layout, select the desired version to install from the component by selecting the radio button.
- 7. Click the **Change Component** button.

**Note:** An upgrade of RTE server only upgrades the Transaction Server RTE component of JD Edwards, and not the JMS components.

Refer to the *JD Edwards EnterpriseOne Server Manager Guide* to upgrade the Server Manager Agent. You can only update the Server Manager Agent after you have upgraded the Server Manager Console to Tools Release 9.1.

## Uninstalling the Transaction Server RTE Software Component using Server Manager

Use this procedure to uninstall the Transaction Server RTE Software Component using Server Manager.

- 1. Log on to the Server Manager console.
- 2. Click on the managed home location.
- **3.** Select the Transaction Server Real Time Events (RTE) instance.
- 4. Click the **Remove Instance** button.

Conception (Pastinger)	AN A REAL PROPERTY AND A R	and the second	
Select Instance .	deventdev03e miab idedwards.com IC-1	de agentSCEHAI	
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lecver Sittlate Torders	Hanaped Instances		
Discourses Instant Information	Brown below any all the managed reduced proved by the net restallation.	enged hand. Use caution when remaining nationals, Sepanding on the instance type the	her make alreading and/or disking the Distribution of
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**Note: Post Uninstallation.** If after you uninstall the Transaction Server RTE instance, this folder is present, you must manually delete it:

<WAS\_ PROFILE\_LOC>\filestores\ORABus-<RTE\_INSTANCE\_NAME>

A

### Architecture of the Guaranteed Event System

This appendix presents an architectural diagram of the Guaranteed Event System, which is one of the JD Edwards EnterpriseOne Transaction Server Components. The diagram depicts the general sequence that occurs when an event is published. These steps correspond to the numbered sequence of events in the diagram:

1. An HTML client user executes a business function (BSFN) request.

This request is sent to the JD Edwards EnterpriseOne HTML Web Server.

- **2.** The HTML Web Server forwards this request to a CallObject kernel on the Enterprise Server.
- **3.** The CallObject kernel executes the BSFN, which calls the Event API to send the event data to the F90710 Event Transfer table.

If the event is a Z event, the data is sent to F90710 in a final XML format.

- **4.** A database polling application available with the JD Edwards EnterpriseOne Transaction Server polls any available records in F90710.
- **5.** The transaction server retrieves the event data from F90710 and (for Real-Time and XAPI events) converts the data to an XML document in the appropriate format.
- **6.** The transaction server routes the event to the subscriber queue(s) for each subscriber that has established an active subscription for that event.
- **7.** When a subscriber connects to the Transaction Server, the subscriber is sent all the events that exist in its subscription queue at that time.



Β

## Creating and Configuring Multiple Transaction Servers per Environment or User/Role

The default configuration for the Transaction Server defines the F907\* tables (event tables) to reside in one datasource. These tables are included in the System datasource database (for example, SY812 or SY900). Using this default configuration, only a single Transaction Server may be configured to monitor the F907\* tables.

This appendix provides instructions to set up and configure multiple Transaction Servers so that transactions can be separated by one or more of these criteria:

- Environment
- Role/User

This process allows you to:

- Separate transaction events by environment so that two different transaction servers can service the events
- Use OCM mappings to point to the different environments

This appendix describes these tasks:

- Section B.1, "Creating and Configuring Multiple Transaction Servers per Environment"
- Section B.2, "Creating and Configuring Multiple Transaction Servers per Role/User"

#### **B.1** Creating and Configuring Multiple Transaction Servers per Environment

These general guidelines apply:

Production Environments

The F907\* tables should remain in the System database as defined by the standard setup and configuration. Since the transaction server is designed to work with only one set of F907\* tables, the normal procedure is to configure the transaction server with these system tables.

Test and Dev Environments

In order to separate Test and Dev environment transactions from Production, you can copy the F907\* tables into the business data database and change the OCM mappings accordingly. A second transaction server is necessary in order to access

these copied tables because, by design, each Transaction Server can only work with only one set of F907\* tables.

Multiple Transaction Servers

In order to support the separation of the F907\* tables per environment, you must install an additional Transaction Server per environment or environment combination. For example, if you want to isolate your Production environment and then combine your Test and Dev environments, you would need a total of two Transaction Servers. If you further wanted to separate your Test and Dev environments, you would need a total of three Transaction Servers.

Do not start any added Transaction Servers until you complete the procedure in this appendix.

To create and configure the Transaction Server per environment:

1. With the exception of the tables listed in the *Exceptions* below, copy all remaining F907\* tables from the System database to the business data database.

#### Exceptions

The following tables are initially cached on JD Edwards EnterpriseOne service startup and contain the necessary information needed for all environments and subscribers. Therefore, these tables and their OCM mappings should remain in the System datasource:

- F90701
- F907011
- F90705
- **2.** Use OCM to remap the F907\* tables copied in Step 1 to the new business data database for both the system and the server map.

For example, the completed mappings might look like these:

```
JPY900 F90701 TBLE System - 900 *PUBLIC AV
JPY900 F907011 TBLE System - 900 *PUBLIC AV
JPY900 F907012 TBLE System - 900 *PUBLIC AV
JPY900 F90703 TBLE Business Data - CRP *PUBLIC AV
JPY900 F90704 TBLE Business Data - CRP * PUBLIC AV
JPY900 F90705 TBLE System - 900 *PUBLIC AV
JPY900 F90706 TBLE Business Data - CRP *PUBLIC AV
JPY900 F90707 TBLE Business Data - CRP *PUBLIC AV
JPY900 F907071 TBLE Business Data - CRP * PUBLIC AV
JPY900 F907072 TBLE Business Data - CRP *PUBLIC AV
JPY900 F90708 TBLE Business Data - CRP *PUBLIC AV
JPY900 F90710 TBLE Business Data - CRP *PUBLIC AV
JPY900 F90711 TBLE Business Data - CRP *PUBLIC AV
JPY900 F90712 TBLE Business Data - CRP *PUBLIC AV
JPY900 F90715 TBLE Business Data - CRP *PUBLIC AV
JPY900 F90720 TBLE Business Data - CRP *PUBLIC AV
JPY900 F90730 TBLE Business Data - CRP *PUBLIC AV
```

- **3.** Activate the RT\* event for added environment (for example, JPY900) in P90701 by:
  - Taking the Form exit to Event Activation
  - Doing an Add to add the new Event per environment
  - Using the Row exit to change the status to Active

- **4.** Refresh the JD Edwards EnterpriseOne server cache by restarting the EnterpriseOne services.
- 5. Add subscriber information for the added environment (for example, JPY900).
- 6. Refresh the Transaction Server cache by restarting the transaction server.
- 7. Trigger the event.
- 8. Verify the event is recorded in the F90710 Business Data Source table.
- **9.** From a JD Edwards EnterpriseOne client machine, use this command to run the Table Trigger script for F90710 in the business data for the added environment (for example, PY Business Data):

<home>\system\bin32\dbtemplates.exe -create

where <home> is the installation directory of the JD Edwards EnterpriseOne Administration client that is named according to the JD Edwards EnterpriseOne release. For example, E812 or E900.

**10.** Verify the F986112 table is populated and the new event in F90710 has the status 3 instead of 2.

#### **B.2** Creating and Configuring Multiple Transaction Servers per Role/User

This section describes a configuration where multiple Real Time Events can be processed by multiple Transaction Server instances within the same JD Edwards EnterpriseOne environment. You can process events by Role/User to enable specific users to have their events processed by a specific Transaction Server. This setup is similar to that in the previous section, Section B.1, "Creating and Configuring Multiple Transaction Servers per Environment". Instead of separating the events by environment you are separating the Real Time Event messages by Role/User.

#### **Multiple Transaction Servers**

In order to support the separation of the F907\* tables per Role/User, you must install an additional Transaction Server per User or Role combination. For example, you have set up a role for processing Sales Orders and another role for processing all other Real Time Events. In this case, you would need an additional Transaction Server for each role addition.

To configure the system to route Real Time Events to specific Transaction Servers based on the JD Edwards EnterpriseOne Role/User user that is generating the event:

- **1.** From JD Edwards EnterpriseOne, create a new Role which will include a group of users that will initiate the Real Time Event messages.
- **2.** Create these tables in the same environment datasource (Business Data PROD) or create a custom Data Source (for example, TS2 / PD900):
  - F90710 Event table
  - F90730 Unique sequence table
- **3.** Copy these tables from the System datasource to the same environment datasource you used in Step 2:
  - F90706 Event Subscriber
  - F90707 Event Subscription
  - F907071 Subscribed Events
  - F907072 Subscribed Environments

F90708 - Event Sequence

These tables contain the subscriber information and whether they are active or not. It is important to note that when you copy these tables, whenever you want to make changes to the subscriber information you must ensure you are logged in as the appropriate user. This is required to ensure you are making changes to the correct table. If you do not copy these tables, you will continue to see errors in the Transaction Server log where events cannot be delivered to all the subscribers, although this does not affect the delivery of the events to the correct queue.

- **4.** Create new OCM mappings for all the tables listed in Steps 2 and 3 for the new Role (for example, role associated with the PD900 environment and the copied F90710 table and the role associated with the PD900 environment and the F90730 table) to point to Business Data PROD. You must make mappings for both SYSTEM and Server Map.
- **5.** On a JD Edwards EnterpriseOne client machine, run the program to create the table trigger on the new F90710 table. From a command prompt, navigate to this directory:

e900\system\bin32\

**6.** From the above directory, run this command:

dbtemplates.exe -create

When prompted ensure you log in as the new user (assigned to your new role) so that the program uses the new OCM mappings to locate the correct table in which to create the new trigger.

Henceforth when logging in as a user defined by this role, a generated Real Time Event sends the message into the appropriate F90710 table and updates the F90730 table.

- **7.** Install a new Transaction server that will be used to process the events for each new Role/User.
- **8.** Configure the newly installed Transaction Server with one of the users in the new Role as the bootstrap user.
- 9. Process a transaction that triggers an event for the new Role.
- **10.** Start the newly installed Transaction Server and check the queue to make sure the event was delivered to the new Transaction Server.
- **11.** Verify the previous configuration still functions as expected by logging in as any user *not* belonging to the new Role and generate an Event and see that the message goes into the F90710 (System 900) and is delivered to the original Transaction Server.

**C** 

## Testing and Validating the JMSQUEUE Configuration

If you have followed the steps to activate RTABOUT, a Real Time Event will be created whenever you Add, Change, or Delete an Address Book record. However, before performing any of those functions you should follow the procedure outlined in the following documents found in My Oracle Support. Access the document according to your Tools Release.

- E1: OUTBND: Creating and Using a JMSQUEUE in WebSphere for RTEs. Tools Release 8.98.x (Doc ID 1159783.1)
- E1: OUTBND: Creating and Using a JMSQUEUE in WebSphere for RTEs. Tools Release 9.1.x (Doc ID 1576889.1)

# D

## Creating an Oracle JD Edwards EnterpriseOne Service Request for Transaction Server Support

To minimize the resolution time for any Service Requests you might have to create with Global Support, it is recommended that you provide this information:

- JD Edwards EnterpriseOne Enterprise Server JDE.INI file
- Exact JD Edwards EnterpriseOne Tools Release on which you are running (for example, 9.1.1.1)
- Indicate that you are running Transaction Server on WebSphere and the exact release and version your application server (for example, WebSphere 7.0 or 8.5)
- The content of the config folder within the Transaction Server Agent where the Transaction Server instance resides
- Logs from Server Manager generated when starting the Transaction Server

**Tip:** To obtain a more detailed set of logs, you can use Server Manager to enable enhanced logging. For the *Log Name* with a value *RTE*, change the *Log Components* value to *EVENTPROCESSOR* as shown below.

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RTE //nome/marco/JDE_HOME/targets/rte-wis-e90/logs/rte.log	Low Level Troubleshooting Messages (Verbose)	Application Format	TRUE .	10MB	20	EVENTR
E1LOG /home/marco/JDE_HOME/targets/rte-wls-e90/logs/e1root.log	Warnings and Recoverable Errors	Application Format		10MB	20	ALL
Create New Log Configuration						

- Once the additional jdelog.properties definition is added as described in the preceding step, stop the Transaction Server, clear the RTE logs and produce the logs generated after going through the steps outlined in Appendix C, "Testing and Validating the JMSQUEUE Configuration".
- Description of the results obtained when running the test described in Appendix C, "Testing and Validating the JMSQUEUE Configuration"

Specifically, you should be able to provide the status of the F90710 record after the RTE is started.

## **Clustering Real Time Events on WebSphere**

This appendix contains the following topics:

- Section E.1, "Understanding WebSphere Clustering"
- Section E.2, "Creating a Cluster on the IBM WebSphere Application Server"
- Section E.3, "Installing the Transaction Server RTE Component on the WebSphere Application Server using Server Manager"
- Section E.4, "Using JDBC Store"
- Section E.5, "Using Horizontal Clusters on WebSphere"

#### E.1 Understanding WebSphere Clustering

The implementation of WebSphere clustering permits the deployment of application components and services to several machines with a single face to the client. When a client requests a service, it should make no difference if the service runs on a single server or across a number of servers. The clustering abstraction provides you with a clear route to improving the performance and scalability of the applications with increased administration of hardware and network resources. WebSphere clustering provides these benefits:

Scalability

A clustered solution allows you to create additional capacity by introducing more servers to the cluster, thereby reducing the load on existing servers. For the JD Edwards EnterpriseOne Transaction Server with the Real Time (RTE) Application, you can add as many servers and messaging engines as you like to meet the performance requirement. The RTE application on WebSphere achieves scalability with the implementation of a messaging engine policy.

Load balancing

The ability to distribute requests across all members of the cluster, according to the workload on each server. WebSphere handles load balancing as defined by the Load Balancing Algorithm that you configure on cluster setup. The Transaction Server with RTE on WebSphere only supports round-robin load balancing policy for the RTE application.

High availability

A mix of features that ensure applications and services are available even if a server or machine fails. Clients can continue to work with little or no disruption in a highly available environment. RTE on WebSphere achieves high availability with the implementation of a messaging engine policy.

#### E.2 Creating a Cluster on the IBM WebSphere Application Server

To create a cluster on the WebSphere Application Server:

1. Go to Servers > Clusters > WebSphere application server clusters.



#### 2. On WebSphere application server clusters, click the New button.



- **3.** On the Create a new cluster dialog, enter the name of the cluster.
- **4.** Click the Next button.

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- **5.** On Create first cluster member, in the Member name field, enter a name for the first cluster member.
- **6.** Click the Next button.



7. On Create a new cluster, click the Add Member button.

Continue this step to add your additional cluster members.

**Note:** When creating a horizontal cluster, you must add a server with the available node targeted to the remote host name.



**8.** When you have finished adding members, click the Cancel button to exit the Create additional cluster members part of the wizard.

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- **9.** On Create a new cluster, click the Finish button.
- **10.** Save the cluster configuration.

# E.3 Installing the Transaction Server RTE Component on the WebSphere Application Server using Server Manager

**1.** Go to the Server Manager Console.

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**2.** On the Server Manager Console, with the Managed Instances displayed, click the Create New Managed Instance button.

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- **3.** On Create/Register A Managed Instance, Instance Type, select the EnterpriseOne Transaction Server radio button.
- **4.** Click the Continue button.

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- **5.** On Create/Register A Managed Instance, Instance Properties, complete these fields:
  - Instance Name

Enter a value for your installation.

J2EE Server/Cluster

Use the pulldown to select your cluster from the list of automatically detected clusters.

HTTP Port

You must specify an unused port number.

Software Component

Use the pulldown to select the desired version of the EnterpriseOne RTE Server software component.

- **6.** Click the Continue button.
- 7. On Create/Register A Managed Instance, Confirmation, click the Continue button.



8. On Create/Register A Managed Instance, Finish, click the Create Instance button.

#### E.4 Using JDBC Store

To use JDBC Store:

- **1.** Login to WAS admin console.
- **2.** Select Resources ->JDBC ->Data Sources from left panel of the console and choose the cluster scope.

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3. Click New and navigate to Create Data Source screen

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**4.** Enter the Data Source name and JNDI name as shown in below screen shot and click Next

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**6.** Fill in all the details as shown in the below screen shot and proceed to next screen clicking Next

**Note:** Other Database types may be selected and similar configuration parameters may be selected.

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**7.** Give the directory location for ojdbc6.jar as seen in the below screen shot and Click Next.

**Note:** This is a typical example for using Oracle database. For other database similar type 4 JDBC driver location is provided.



**8.** Fill in the appropriate URL for the database from which the data source obtains the connection and data store helper class name as shown in below screen shot and click the **Next** button.

The URL should be similar to this:

jdbc:oracle:thin:@localhost:1521:sample" for thin driver

Note: The URL for other databases will differ.

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BResources	Step 2: Belect IDBC	Set these database-specific properties, which are required by the database vendor 308 driver to autoport the connections that are managed through the database.			
Subschlers     Object peel managers     O	Brog 2.31 Chuste new IDGC growtder Stap 2.21 Enter dataSeas class path information Map 31 Infer dataSeas specific data search Brog 41 Setup security allesses Brog 31 Reserves	Imme     Value       + URL     Unitedentau64:1552:/teatrie       Oracle110 data atore helper     Image persistence (CMP)			

**9.** Click the Next button on setup security aliases screen as you would lose your current wizard selections by setting them up now. This can be set later.

integrated Solutions Console Welcome		Help   Logart
Integrated Solutions Console		
View) As tares	Call+devritigs10Cal01, Profile	r=Dmgr01
4 Halcona	Create adata source	
El Guided Activities		
B Servera	Create a data source	
🖽 Applications	Ding 11 Ertier basit.	Setup security aliases
El Services	information	
E Rassurtes	Step 2: Select 2050	Select the autheritication values for this resource.
Schedulers     Object pied menagers     Dosc     JOBC previders     Ostar sources     Ostar sources     Data sources     Data sources     Asynchronicus beans     Cache instances     Anychronicus Beans     Sud     URL     Resource Environment	Stop 2.1 Create new IDBC provider Stop 2.2 Enter database times path information Btep 31 Enter database specific properties for the data base specific properties for the data structe Stop 31 Enter Stop 31 Summary	Component-managed authentication alias [Inone] Mapping-configuration alias [Inone] Container managed authentication alias [Inone] Container managed authentication alias [Inone] Note: You can create a new J2C authentication alias by accessing one of the following Insta. Circling on a link will cancel the waard and your current waard selections will be last. Circles 12C authentication alias Security domains
III Security	Previous Next Ca	incel
E Environment		

**10.** Click Finish and navigate to the Create data sources screen.

degrated Solutions Console Welcome			Help   Logout		
Views All tasks	Cell+drvmtga30Cell01; Profile	=Dmpr01			
Welcome	Environment and a second se				
Guided Activities					
l Servers	Create a data source				
Applications	Step 2: Arter heat	Summary			
Services	deta source information	Summary of actional			
Resources	Thep 21 Select IDSC	Optional	Values		
<ul> <li>Schedulers</li> </ul>	provider	Scope	cellaudnymtga30Cell05idkateraiteatdkater		
<ul> <li>Object pool menapere</li> <li>Note</li> </ul>	Blap 2.11 Create	Deta source name	306062		
Black		WDI name	30802		
<ul> <li>30BC providers</li> </ul>	database class path	3DBC provider name	Orade JDBC2 Driver		
Data sources	information	Description	Orade 306C2 Driver		
<ul> <li>Data sources (WebSphere Application Server V4)</li> </ul>	Stage 2 + Enter	Class path	\$(ORACLE_XDEC_DRIVER_PATH)/opdbc6.jar		
B Resource Adapters	database specific properties for the	\$(DRACLE_JOBC_DRIVER_PATH)	Crioracle/product/11.1.0/client_1/gdbc/lib		
B Azynchronous beans	data suurce	Implementation class name	oracle.jdbc.pool.OracleConnectionPoolDataSource		
E Cache instances	Sibap 4: Setup	URL	jdbcioracleithini@denitsii64i15521itestrte		
B west	security eleses.	Data store helper class name	com ibm websphere readapter. Oradie11gDataStoreHelper		
B Assource Environment	-> Step 3: Summary :	Use this data source in container managed persistence (CMP)	true		
Security		Component-managed	(none)		
Environment		Nancinguranting alian	(none)		
System administration		Container managed	Contrast.		
Users and Groups		authentication alias	(none)		
Nextoring and Tuning	Previous   Finish   1	Cancel			
Traublashooting		and the second sec			

#### 11. Select the newly created Datasource and navigate to Test connection screen

Integrated Solutions Console Welcome					Help	Legout.		
Views All tasks	Cal-drimtga20C	elios, Profile+Dringrós						
- Walcome	Data suerces							
B Guided Activities	Data sources							
E Servers	Use this page t	o edit the settings of a dataso	roe that is associated with	your selected JDB	C provider. The de	teacurce		
🖽 Applications	object supplies your application with connections for accessing the detabase. Learn more about this task in a <u>guided</u> attivity. A guided activity provides a list of task steps and more general information about the topic.							
E Services	E Scoper Cell+dnvmtqs30Cell01. Ouster+testcluster							
E Resources	Shaw	scope selection droondown list	with the all account option					
Schedulern     Object pool Markagers     JOSC     JOSC     JOSC     JOSC providers     Outs sources     Outs sources     VelSphere Application Server     Vel	Scope specifies the level at which the resource definition is visible. For detailed information on what scope is and how it verks. <u>see the scope settings help.</u> Cluster=textcluster Preferences New Delate Test connection Manage state							
BRANNICE Adapters	00 7 7							
B Cache instances	Select Rame (	2NDL name ()	Scope C	Provider ()	Description ()	Category C		
E Mad	You can administer the following resources:							
I URL	D JERCEL	30801	Cluster=testcluster	Oracle 308C1	New JOBC			
E Ressurce Environment		10.0.00	Characteristic and	Driver	L'atagource	-		
田 Security	0 45	( States	wromer =tessouster	Driver	Datasource			
E Environment	Total 2							
B System administration								

**12.** On this screen select JAAS -J2C authentication data under "Related Items" as shown in below screen shot.
Paragraph of March 2012		
Views All tasics 😽	Canada Annual Society Provide Congrat	
• walczma	Data sources	
B Guidad Activities	Data sources > 3D8C52	
B Servera	Use this page to edit the settings of a datasource that is associated with your	selected 206C provider. The datasour
E Applications	object supplies your application with connections for accessing the database.	
B Services	Configuration	
B Resources		
· Echefulers	Test connection	
Object pool managers     Joac     Joac     Joac     Joac     Joac     Joac     Joac     Data sources     Outs sources     Outs sources     Outs sources     Outs sources     Asynchronous beans     Source instances     Mail     Urit     Resource Environment	General Properties  • Scope [selis drawmtgs3DCeB011clusters rteatcluster • Provider Dracks 200C2 Driver • Name [200C52 ]ND1 name [200C2 ] Use this data source in container managed persistence (CMP)	Additional Properties     Connection post properties     WebSchere Application     Server data source     Sourcestas     Contents     Contents     Exelected Stems     Subscheres     Subscheres     Subscheres
B Security	Deportation	
Environment		
2) System administration		
🗄 Users and Groups	and the second se	
Meettoning and Tuning	Category	
🗄 Troubleshooting		
E Service Integration	Data storn helper class name	
E uppt	C Select a data store helper class	
	Date store helper classes provided by WebSphere Application Server	
	Oracle10g data store helper	

**13.** Select the **New** button.

Integrated Solutions Console Welcome			Help	Logout
View All tasks	Celledromtax20Cat01, Profile=1	2mgr01		
· Welcome	Data sources			7 -
E Ouided Activities	Data sources > 3DBC52 > 3A	45 - 32C authentication data		
B Servera	Specifies a list of user identity	as and passwords for Java(TM) 2 connect	or security to use.	
I Applications	Stafic new alias names of	th the node name of the rell (for romost	(hildy with earlier releases)	
III Sarvicaa				
E Resources	Apply			
Schafter     Schafter     Object pool managers     Biss     Josc     JOSC providers     JOSC providers	B Preferences			
Data sources (WebSphere Application Server	Select Alles 0	User ID 🔘	Description ()	
Kessure Adapters     Adapters     Adapters     Adapters     Adapters     Cache instances     Mail	fione Total 0			

**14.** Fill in appropriate values for all the fields of this screen as shown in below screen where User ID specifies the J2C authentication data for database connection.

Integrated Solutions Console Welcome		Help   Logaut
Views Ali taska	Cell+drivmiga30Cell01, Profile+Dingr01	
Walcoma	Data sources	
E Guided Activities	Data sources > JDBC52 > JAAS - J2C authentication data > New	
B Servera	Specifies a list of user identities and passwords for Java(TM) 2 connector security to use-	
E Applications	Ceneral Properties	
E Services	* Allas	
El Resources	Joecs	
Schedulers     Object pool managers	+ User ID feat0	
E 1945	• Passing d	
Bace     SoleC providers     Cata anorces     Data anorces     Data anorces     WebSphere Application Server     Vel	Description best8	
Resource Adapters     Asynchronous beans     Cache Instances	Apply OK Reset Cantel	
E Mail E URL		



integrated Solutions Console Welcome			Help   Lopout
Views All tasks	Cell-drynitge30Cell01, Profile-Dingr01		Rest Market Star
* Welcome	Data soorces		
B Guided Activities  E Services  Services  Services  Schedulers  Schedulers  Schedulers  Schedulers  Data stances  Data stances  Data stances  Activities  Application Server  Applicatio			
Cache Instances     Mail     Unit     Facource Environment	Delete	1000 10 4	Provide A
E Security	You can administer the following resource	user to U	Passion 0
Environment	dnimtgab0CellWanager01/20802	test8	test8
E System administration	Total 1		
B Users and Groups			

**16.** Again select the data source from top of this screen as shown below.

integrated Solutions Console Welcome			Help 1	Legout	
View: All tasks	Cell+drivintgs30Cel01, Profile+Drigr01				
· malterna	Data sources			_	
B Guided Activities	Data sources > JDBCS2 > JAAS - 32C auth	entication data			
3 Servers	Epecifies a fist of Der identifiers and passwords for Java(TH) 2 connector security to use.				
B Applications	Professor alian names with the node same of the reli (incrementibility with and a releases)				
8 Samices		100000000000000000000000000000000000000			
B Resources	Apply				
Schedulers     Object poul menagers	Preferences				
(B) ans	New Delate				
# JOBC providers	0079				
Outs sources (WebSphare Application Server	Select Alias 🗢	User ID 🗘	Description ()		
(4)	You can administer the following resources				
El Resource Adapters	doimtus20CellManaper01/20802	test0	text8		
B) Cacha instances	Total 1				
E Mail	1622202				
H UAL					
B Assource Environment					

- **17.** Go back to Data Source screen by clicking on the data source name from top of the screen.
- **18.** On this screen chose the security settings newly created as shown in below screen shot and click the OK button.

ail.	Specify a user-defin-	ed data store helper
RL.	Setar a parkage mi	abbed data store helper data name-
asource Environment		
irity		
ronmant	Select the authentication	values for this reduce.
em administration	Component-managed a	authentication alias
and Groups	dnemtga30CellManage	+01/308C2 M
itering and Tuning	Mapping-configuration i	aliaz
blashooting	(none)	
ice integration	dovmtga30CellMa	nager01/JDBC2 V
1		
	Common and required data	source properties
	fame	Value
	* URL	jdbc:oracle:thin:@denitsw64:
	Apply OK Reset	Cancel

**19.** Save changes to master configuration.

Integrated Solutions Console Welcome						mais	Logout
View: All tasks	Cell+dry	ortqa30Call01, I	rofie+Dmgr01				2
* Welcome	Data see	Income.					
El Guided Activities El Servers El Services El Services El Schedulers • Schedulers • Schedulers • Schedulers • Schedulers • Schedulers • Schedulers • Soloc providers • Data sources • Data sourc	Outs Use 1 Solution B Sol	Sources No pega to edit ausplas your a b A guided attiv oper Cell-devent Scope specific information Clusteret Marences	seges Changes have been man <u>Bang directly to the ma- <u>Mang charty to the ma-</u> <u>Mang charges before</u> a option to synchronize to a provide a participation of the the settings of a datasou- polication under charter to provides a lat of task tractic disp-down list which the poly what scope is and how esticluster</u>	e to your local configura ter configuration. Is configuration across in the restarted for these of the that is associated with in acrossing the data steps and more general <b>cluster</b> th the all scopes option resource definition is vis it morks, <u>set the scope</u> .	tion. You can: nultiple nodes after changes to take eff h your selected JDB h your sel	r saving can be eit. IC provider. The da bout this task in a the topic.	tasourca guided
B Security	7640	Delete Te	st connection Manag	e state			
Environment	0	0 # 9					
B System administration	Lelar	Name Ó	3101 name C	Scope Č	Provider ()	Description ()	Category C
E Users and Groups	You	can administer ti	he following resources:	I constant			
B Monitoring and Turning		100051	30601	Cluster+testcluster	Oracle 308C1	Ne= JDBC	
E Troubleshooting		208052	306C2	Clusteretestcluster	Oracle JDEC2	New JDBC	
B Service integration		Sec. 10	1000	and a state of the state of the	Driver	Deterource	
Buppt	Tota	2					

**20.** Check the newly created data source and click the Test Connection button.

B Asynchronous beans B Cache instances B and		Information d	on what scope is and how	vit vorks, gas the stops	ettings help.		
B URL B Ressurce Environment	(H) PM	ferences					
E Security	[New	Delete CTer	it chenection Manag	e state			
🗄 Environment	G	079					
III System administration	Select	Tiams C	31DE name O	Scope C	Provider C	Description 0	Category C
B Users and Groups	You	an administer th	e following resources:				
B Monitaring and Tuning		JORCE1	308C1	Cluster+testcluster	Oracle 3DBC1	New JOBC	
B Troubleshooting		108092	10802	Clusteratestiluster	Oracle 108/22	Dev XOBC	
B Service Integration	2	SARANA .			Driver	Datasource	
Bubbt	Total	2					

- **21.** If prompted, save changes to master configuration, then synchronize the changes and repeat the above step.
- **22.** The test connection should be successful.

Hegrated Solutions Console Welcome					main	Legour P
View: All taska	Cell-drivintga300	elló1, Profile=OrngrO1				10
• Welcome	Data sources					
B Guided Activities		E Messages				
E Servera	6	B The test connection ope	aration for data source 3DE	CS2 on server nod	eagent at node	)
🗄 Applications		dovotea30Node01 vies su	ccesaful,			
E Services	100000000000000000000000000000000000000					
B Assources	Data sources				2	
Schedulers     Object pool managem     JOS     JOS     JOSC     JOSC providers     Dista sources     Outs sources     Outs sources     WebSphere Application Server     Outs     Resource Adapters     B Asynchronous beans     B Cache instances     B Mail     UKL	Che the page t colecte supplies attint. A guide Scope: Cell- Show Scope Inform Ch Defense Page to Defense Page to Defense Pa	v ech the settings of a details your application with connection ed activity provides a list of has -downtqa30Cell01. Cluster=te acope selection drop-down list a specifies the level at which th nation on what scope is and ho uster=testifuster Test passeotion Man	une that is associated with in a for accessing the databask is steps and more general stcluster with the all scopes option a resource definition is vis with vorks, <u>get the scope</u> we specified	are, Learn more a lane, Learn more a information about fale. For detailed <u>settings help</u> .	c) polycoger, the do bout this task in a the topic.	lessvroe outded
E Repource Environment	Ealant Name A	NDI seres O	Renne A.	Desider 0	Description 0	Calapane O
B Security	Vie marrie	anius name g	acobe C	Success O	Casesbook C	Caraboli C
B Environment	TT STATES	toeco	Chateratestelaster	Orarla 308C2	New IDEC	
B System administration			And the second second	Driver	Datasource	
B Users and Groups	Total 1					
B Manituring and Tuning						

**23.** Repeat the steps in this section to create any number of data sources in the cluster scope.

## E.5 Using Horizontal Clusters on WebSphere

The JD Edwards EnterpriseOne Transaction Server installation is configured with filestore for the messaging engines by default. If you use Horizontal cluster it is mandatory that you use the JDBC store.

To use horizontal clusters on WebSphere:

**1.** Go to Service Integration > Buses.

Views All tasks	Call+dn/mga30Cell01, Profile+Om	gr01	
Welcone.	Buses		
B Guidet Activities	Reset		
B Servera	A service integration bus support	applications using message-based and servic	e-priented architectures. A bus is a group
B Applications	of interconnected servers and clu of the messaging engines assoc	aters that have been added as members of the ated with its bus members.	e bus. Applications connect to a bus at on
BServices	Preferences		
BRASOUTCAS	New Delete		
Schadulars     Object pool managers	0079		
Birec	Select Name 🔿	Description ©	Security 🗘
<ul> <li>3DBC previders</li> </ul>	You con administer the following	resources:	
Data sources	C CAAbaa	EI Transaction Server Bus - Manaping queues and topics	Disabled
(va)	Total 1		
E Resource Adapters			
Asynchronous beans			
E val			
Butt			
E Assource Environment			
E Secure,			
BEnvironment			
B System administration			
E Users and Groups			
B Menitoring and Tuning			
8 Troublashooting		10	
B Service Integration			
a Russes			

- **2.** On Buses, select ORABus.
- **3.** On Buses, select the Bus Members.

Integrated Solutions Console Welcome			Help   Logout
Views All tasks 😾	Cell-drymtga20Cell01, Profile-Dr	ngr01	_
· Walcome	Bubes		
El Ovided Activities	Buses > ORABes > Bus membe		
E Servera	Bus members are the servers, V	VebSphere MQ servers and clusters t	hat have been added to the bus.
🗉 Applications	E Preferences		
B Services	Add Ramova		
BAssurges			
* Schedulers	6013		
<ul> <li>Object posi managere</li> </ul>	Select Name O	Type C	Messaging engine policy assistance 🔅
E JMS	You can administer the following	g resources:	
# JOBC providers	testileater	Shuter	Enabled (Scalability with high
Deta sources	La La		avanabiety)
<ul> <li>Data seurces (HebSphere Application Server (V4)</li> </ul>	10011		
IR Resources Advertures			

- 4. On Buses, Bus members, click on the link for the cluster.
- 5. On Bus members, click Additional Properties > Messaging engines.
- **6.** Select the messaging engines created by default with the RTE installation.

I Guiled Activities	Crimberth	HertieSellit, histie=Rmailt		
E fervert	Recen			
Process Types     Process Types     Process Types     Process     Process	A massa to a massa El Portes Add m Gi Co Select	Messages     Marsages     There is a messages     connect for the scalab      ORARes WASEII > Rea members     programping is a component, runni     segreg engine then they excess a     ences     ences     T    T     tame :	programpine configured for each member des with high availability policy. > () > Messaging enginess for C3 ng inside a server, that manages messa service integration bus.	of the server dutter bus member. This is ging resources for a bus member. Applications are connected Status: © Q
团 Applications	TON CAP	1.000-DEABus WARETE		0
III Saraicap	(e) -			1
III Researces	2	LOUI-DRABUL-WAIKTE		0
10 Security	Total 2			

7. Click the Remove messaging engine button to delete them.

Views All Cashia	Cel-diventga30Cel01, Prifike-Ongr01				
- Nelsona	Duses /				
B Guided Activities	E Messages				
🗄 Servera	Changes have been made to your local configuration. You can				
El Applications	Earlier directly to the master configuration.     Earlier changes before available or discarding.				
🗄 Services	An option to synchronize the configuration across multiple nodes after saving can be enabled in <u>Preferencer</u> .				
E Resources	The server may need to be restanted for these changes to take effect.				
Echedulers     Object pool managers     Jobe     Jobe     Jobe     Jobe     ADDC previders     Object sources     Data starces (Neblighers Application Server	Buses > ORABus > Bus members > testchester > Messaging engines for testchester           A messaging engine is a component, running inside a service, that manages messaging resources for a bus member. Applications are connected to a messaging engine when they access a service integration bus.           B Preferences           Add messaging engine         Remove messaging engine				
	the state of the				
B Resource Adapters					
Assource Adapters     Asynchronous beans	6011				
Resource Adapters     Aspectronous Beans     Deche Instances	to C → T Select Name 0 Description 0 Status 0 Q				
Resource Adapters     D Assochronous beans     D Cache Instances     Mail	Select hame ☆ Description ☆ Status ☆ ✿ Rone				

**8.** On Buses, OraBus, Bus members, testcluster, Messaging engines for testcluster, click the Add messaging engine button.

Quegrated Solutions Console www	deame		Help   Legent		
View All tasks	*	Select message store type			
* Walczma		Reflect stresses atom from			
B Oulded Activities					
🗄 Servers		Choose the type of message store for the persistence of message state			
B Applications		-) Hep 1: Select the	Select the type of message store		
E Services		type of meanage			
E Resources		(The next shee of the	Choose the type of message store for the persistence of message state		
Schadulers     Object pool managers     B JMS     B JDec		inizand depends on decisions made in the current step)	<ul> <li>File store</li> <li>Data store</li> </ul>		
<ul> <li>308C providers</li> <li>Data sources</li> <li>Data sources (WebSphere App V4)</li> </ul>	plication Server	Next Cancel			

- **9.** On Select message store type, select the radio button for **Data store**.
- **10.** Click the Next button.

Integrated Solutions Console Welcome			elp   Legeut
Views All tasks	Configure à date store.		
= Welcome	Configure a data store		
Guided Activities			
E Servers	Configure the properties for	ir a data store	
B Applications	Step 1: Belet the	Specify data store properties	
E Services	type of message store	A REAL PROPERTY AND A REAL PROPERTY.	
E Resources		. Specify the properties for the data store	
· Schudulare	data store	Data source 2001 Aame	
<ul> <li>Object pool managers</li> </ul>		Schema name	
B 345	Step 3: Summary	IBMWSSIB	
a 2000 securitaria		Authentication alias	
· Data scorces		dnymtqa30CellManager01/JD8C1 M	
Data sources (WebSphere Application Server V4)		🗹 Create tables	
B Resource Adapters	Convinue Mart C	eretaria Arreat 10	
E Azynchronous beans	FIGHINGS NEXT	and: 1	
E Cache instances			
E Mail			

- **11.** On Specify data store properties, complete these fields:
  - Data source JNDI name

Enter a name for the JNDI. For example, JDBC1.

Schema name

Enter a name for the schema. For example, IBMWSSIB.

Authentication alias

Enter an authentication alias. For example, <machine>CallManager01/JDBC1.

- **12.** Click the Finish button.
- **13.** Save changes to master configuration.
- 14. Repeat the same for creating Message Engines for other members of the cluster.
- **15.** On deleting the default message engines created during the installation of the RTE application, all the Queues are also deleted. As a result, you must re-add these queues manually or you can run the rte.py script passing the required parameters.
- 16. Run this wsadmin command before starting the clustered servers/RTE instance.

Go to the <WAS\_DMGR\_PROFILE\_LOC>\bin on command prompt.

Run the following command on the prompt:

```
wsadmin -lang jython -f <JDE_AGENT_HOME>\bin\rte.py
createSIBDestination <Bus-name> <Nodename> <Server_name> <Cluster_Name>
<profilepath> <queue_names>
```

## For example:

Z:\IBM\WebSphere\AppServer\profiles\Dmgr01\bin>wsadmin -lang jython -f Z:\JDE\_HOME\_WAS7\bin\rte.py createSIBDestination ORABus dnvmtqa30Node01 MyServer1 MyCluster1 Z:\IBM\WebSphere\AppServer\profiles\Dmgr01 SubQueue00, SubQueue01, SubQueue02, SubQueue03, SubQueue04, SubQueue05, SubQu eue06, SubQueue07, SubQueue08, SubQueue09, SubQueue10, SubQueue11, SubQueue12, SubQueue13, SubQueue14, SubQueue15, EventQueue00, EventQueue01, EventQueue0 2, EventQueue03, TriggerQueue, SourceRouteQueue, ESBQueue00

Pass input as NULL where not applicable. For a cluster, input for Nodename and Server\_name can be passed as NULL.