

Oracle® Fusion Middleware

WebLogic Tuxedo Connector Quick Start Guide for Oracle
WebLogic Server

11g Release 1 (10.3.6)

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This document summarizes how to configure Oracle
WebLogic Server to interoperate with WebLogic Tuxedo
Releases 6.5 and higher.

Oracle Fusion Middleware WebLogic Tuxedo Connector Quick Start Guide for Oracle WebLogic Server, 11g Release 1 (10.3.6)

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Preface

This preface describes the document accessibility features and conventions used in this guide—*WebLogic Tuxedo Connector Quick Start Guide for Oracle WebLogic Server*.

Documentation Accessibility

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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.
<i>italic</i>	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.

Introduction and Roadmap

This chapter describes the contents and audience for this guide—*WebLogic Tuxedo Connector Quick Start Guide for Oracle WebLogic Server*.

This chapter includes the following sections:

- [Section 1.1, "Document Scope and Audience"](#)
- [Section 1.2, "Guide to This Document"](#)
- [Section 1.3, "New and Changed Features in this Release"](#)

1.1 Document Scope and Audience

This document is a resource for system administrators and operators responsible for monitoring and managing a WebLogic Server installation. It is relevant to all phases of a software project, from development through test and production phases.

1.2 Guide to This Document

This document is organized as follows:

- This chapter, [Chapter 1, "Introduction and Roadmap,"](#) provides a roadmap for this guide and describes the audience for this guide.
- [Chapter 2, "WebLogic Tuxedo Connector Quick Start Guide,"](#) describes how to use the Oracle WebLogic Server console to configure Oracle WebLogic Tuxedo Connector so that Oracle WebLogic Server can interoperate with Tuxedo Releases 6.5 and higher.

1.3 New and Changed Features in this Release

For a comprehensive listing of the new WebLogic Server features introduced in this release, see *What's New in Oracle WebLogic Server*.

WebLogic Tuxedo Connector Quick Start Guide

This chapter describes how to use the Oracle WebLogic Server console to configure WebLogic Server so that Oracle WebLogic Server can interoperate with Tuxedo Releases 6.5 and higher.

Note: For more detailed information on how to configure the WebLogic Server for this Oracle WebLogic Server release, see *WebLogic Tuxedo Connector Administration Guide for Oracle WebLogic Server*.

This chapter includes the following sections:

- [Section 2.1, "Where to Find WebLogic Server Samples"](#)
- [Section 2.2, "Configuring the WebLogic Server"](#)
- [Section 2.3, "Configuring Oracle Tuxedo"](#)
- [Section 2.4, "Run the Example"](#)

2.1 Where to Find WebLogic Server Samples

For this release of WebLogic Server (WTC), samples are available on the Oracle Technology Network web site. Create a `wtc` directory within the samples directory of your WebLogic Server installation. Download the WTC samples to this directory. To run the samples referenced in this document, you must download the `simpapp` and `simpserv` samples.

2.2 Configuring the WebLogic Server

Note: This section summarizes how to configure the WebLogic Server on a Windows platform. UNIX users can adapt the instructions by making appropriate substitutions such as replacing the `"\"` with `"/` and `".cmd"` with `".sh"`.

This example extends the Oracle Tuxedo `simpapp` application to run over Oracle Tuxedo Domains (TDomains). This allows clients of the `TOUPPER` service to run on either the Oracle Tuxedo server or the Oracle WebLogic Server `examplesServer`. The example provides the following services:

- **TOUPPER:** An Oracle Tuxedo service that converts a string to upper case. A Oracle WebLogic Server client invokes the `TOUPPER` EJB and connects to the Oracle Tuxedo `TOUPPER` service.
- **ToLower:** A service implemented by an EJB in Oracle WebLogic Server. The client for the `ToLower` service runs on Oracle Tuxedo.

The following sections describe how to configure WebLogic Server using the Administration Console:

- [Section 2.2.1, "Build the Simpapp Example"](#)
- [Section 2.2.2, "Create a WTC Service"](#)
- [Section 2.2.3, "Create a Local Oracle Tuxedo Access Point"](#)
- [Section 2.2.4, "Create a Remote Oracle Tuxedo Access Point"](#)
- [Section 2.2.5, "Create Exported Services"](#)
- [Section 2.2.6, "Create Imported Services"](#)
- [Section 2.2.7, "Target mySimpapp to the examplesServer"](#)
- [Section 2.2.8, "Register TDOM1 as an Oracle WebLogic Server User"](#)

2.2.1 Build the Simpapp Example

Note: You may want to enable tracing to monitor WebLogic Server. See "Monitoring the WebLogic Tuxedo Connector" in *WebLogic Tuxedo Connector Administration Guide for Oracle WebLogic Server*.

Use the following steps to build the `simpapp` example:

1. Boot your Oracle WebLogic `examplesServer`.
2. Open a new shell window and set environment variables using the `SAMPLES_HOME\domains\examples\setExamplesEnv.cmd` file.
3. Change directories to the location where you have downloaded the `simpapp` sample. For example, `SAMPLES_HOME\server\examples\src\examples\wtc\atmi\simpapp` directory.
4. Build the `wtc_toupper.jar` file using `ant`. This will deploy the EJB on Oracle WebLogic Server. Enter the following command: `ant`
5. Change directories to the location where you have downloaded the `simpapp` sample. For example, `SAMPLES_HOME\server\examples\src\examples\wtc\atmi\simpapp` directory.
6. Build the `wtc_tolower.jar` file. This will deploy the EJB on Oracle WebLogic Server. Enter the following command: `ant`
7. Launch the WebLogic Server Administration Console in your browser. Use the following URL: `http://your_machine:7001/console`. Replace *your_machine* with the IP address for your machine or your machine name.
8. In the navigation tree, click **Deployments** and confirm that the `wtc_tolower.jar` and `wtc_toupper.jar` are deployed.

2.2.2 Create a WTC Service

Use the following steps to create and configure a WTC service using the Oracle WebLogic Server Administration Console:

1. Expand Interoperability and select **WTC Servers** in the navigation tree.
2. On the WTC Servers page, click **New**.
3. On the Create a New WTC Server page, enter the name of your WTC Service in the **Name** field. Example: `mySimpapp`
4. Click **OK**.
5. Your new WTC Service appears in the WTC Servers list.

2.2.3 Create a Local Oracle Tuxedo Access Point

Note: When configuring the Network Address for a local access point, the port number used should be different from any port numbers assigned to other processes. Example: Setting the Network Address to `//mymachine:7001` is not valid if the Oracle WebLogic Server listening port is assigned to `//mymachine:7001`.

Use the following steps to configure a local Oracle Tuxedo access point:

1. In the WebLogic Server Administration Console, expand **Interoperability** and select WTC Servers.
2. On the WTC Servers page, click the name of a WTC Service, such as `mySimpapp`, to access the settings page.
3. Click the **Local APs** tab.
4. Enter the following values for the following fields on the WTC Local Access Points page:
Access Point: `myLocalAp`
AccessPoint ID: `TDOM2`
Network Address: the network address and port of your local access point
Example: `//123.123.123.123:5678`
5. Click **OK**.
6. If you are connecting to a Tuxedo 6.5 domain, do the following:
 - a. Click the **Connections** tab.
 - b. Set the Interoperate field to **Yes**.
 - c. Click **Save**.

2.2.4 Create a Remote Oracle Tuxedo Access Point

Use the following steps to configure a remote Oracle Tuxedo access point:

1. In the WebLogic Server Administration Console, expand **Interoperability** and select WTC Servers.
2. On the WTC Servers page, click the name of a WTC Service, such as `mySimpapp`.

3. Click the **Remote APs** tab.
4. Enter the following values for the following fields on the WTC Remote Access Points page:
Access Point: myRemoteAP
AccessPoint ID: TDOM1
Local Access Point: myLocalAp
Network Address: the network address and port of your remote access point
Example: //123.123.123.123:1234
5. Click **OK**.

2.2.5 Create Exported Services

Use the following steps to configure an exported service:

1. In the WebLogic Server Administration Console, expand **Interoperability** and select WTC Servers.
2. On the WTC Servers page, click the name of a WTC Service, such as mySimpapp.
3. Click the **Exported** tab.
4. Enter the following values for the following fields on the WTC Exported Services page:
Resource Name: TOLOWER
Local Access Point: myLocalAp
EJB Name: tuxedo.services.TOLOWERHome
Remote Name: TOLOWER
5. Click **OK**.

2.2.6 Create Imported Services

Use the following steps to configure an imported service:

1. In the WebLogic Server Administration Console, expand **Interoperability** and select WTC Servers.
2. On the WTC Servers page, click the name of a WTC Service, such as mySimpapp.
3. Click the **Imported** tab.
4. Enter the following values for the following fields on the WTC Imported Services page:
Resource Name: TOUPPER
Local Access Point: myLocalAp
Remote Access Point List: myRemoteAP
Remote Name: TOUPPER
5. Click **OK**.

2.2.7 Target mySimpapp to the examplesServer

1. In the WebLogic Server Administration Console, expand **Interoperability** and select WTC Servers.
2. On the WTC Servers page, click the name of a WTC Service, such as mySimpapp.
3. Click the **Targets** tab.
4. Click the checkbox for the **examplesServer**.
5. Click **Save**.

2.2.8 Register TDOM1 as an Oracle WebLogic Server User

Use the following steps to register TDOM1 as an Oracle WebLogic Server user:

1. Click **Security Realms** in the navigation tree.
2. Click **myRealm**.
3. Click on **Users and Groups** tab.
4. Click **Users**.
5. Click **Lock & Edit**.
6. Click **New**.
7. In the Create a New User page, do the following:
 - a. Add **TDOM1** in the **Name** field.
 - b. Enter and confirm a password.
 - c. Click **OK**.
8. Click **Release Configuration**.

2.3 Configuring Oracle Tuxedo

Use the following steps to configure your Oracle Tuxedo domain:

1. Your PATH environment variable needs to include the path of your C compiler. Use set PATH to check the status and add the path if necessary.
2. Copy the `simpapp` example from your Oracle Tuxedo installation and create a working Oracle Tuxedo `simpapp` directory.
3. Change directories to your working Oracle Tuxedo `simpapp` directory.
4. Set environment variables using the `setEnv.cmd` located at TUXDIR. Update the following parameters:
 - TUXDIR - base directory of the TUXEDO Software
 - APPDIR - base directory of the sample program
5. Build the clients:


```
buildclient -o simpcl -f simpcl.c
buildserver -o simpserv -f simpserv.c -s TOUPPER
```
6. Copy the `ubbdomain` and `dom1config` files from the `SAMPLES_HOME\server\examples\src\examples\wtc\atmi\simpapp` directory to your Oracle Tuxedo `simpapp` directory.

7. Copy the `tolower.c` file from the `SAMPLES_HOME\server\examples\src\examples\wtc\atmi\simpapp` directory to your Oracle Tuxedo `simpapp` directory.
8. Modify the `ubbdomain` for your Oracle Tuxedo environment. This includes setting the path names for `APPDIR`, `TUXCONFIG`, and `TUXDIR` and setting the machine name. Replace all `<braced>` items with information for your environment.

Example:

```
APPDIR="\home\me\simpapp"
TUXCONFIG="\home\me\simpapp\tuxconfig"
TUXDIR="\usr\tuxedo"
```

9. Load the `ubbdomain` file: `tmloadcf -y ubbdomain`
10. Modify the `dom1config` for your Oracle Tuxedo environment. This includes creating log devices and updating the network addresses.

Example:

```
DMTLOGDEV="d:\my_apps\tlog"
AUDITLOG="d:\my_apps\aud"
TDOM1 NWADDR="//TuxedoMachine:1234"
TDOM2 NWADDR="//WTCMachine:5678"
```

11. Load the `dom1config` file.

```
set BDMCONFIG=d:\mydomain\simpapp\bdmconfig
dmloadcf -y dom1config
```

12. Build the `tolower` client

```
buildclient -f tolower.c -o tolower
```

13. Boot the Tuxedo domain

```
tmbboot -y
```

2.4 Run the Example

Run each client to demonstrate interoperability between Oracle Tuxedo and Oracle WebLogic Server.

2.4.1 Oracle WebLogic Server to Oracle Tuxedo Interoperability

Start an Oracle WebLogic Server client from the directory location to which you downloaded the samples. For example, `SAMPLES_HOME\server\examples\src\examples\wtc\atmi\simpapp` directory to invoke the `TOUPPER EJB` and connect to the Oracle Tuxedo `TOUPPER` service. Use the following command:

```
ant simpapp
```

The Oracle Tuxedo service replies to your Oracle WebLogic Server application with:

```
Buildfile: build.xml
simpapp:
run_client:
    [java] Beginning statefulSession.Client...
    [java] Creating Toupper
    [java] converting HelloWorld
```

```
[java] converted to: HELLOWORLD  
[java] End statefulSession.Client...  
BUILD SUCCESSFUL
```

2.4.2 Oracle Tuxedo to Oracle WebLogic Server Interoperability

Run the `tolower` client from the Oracle Tuxedo `simpapp` directory to invoke the `Tolower EJB` and return the results to the client. Use the following command:

```
tolower ALLSMALL
```

The Oracle WebLogic Server service replies to your Oracle Tuxedo client with:

```
Returned string is: allsmall
```

