

# Oracle® WebLogic Server

Oracle WebLogic Tuxedo Connector Quick Start Guide  
10g Release 3 (10.3)

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ORACLE®

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# Oracle WebLogic Tuxedo Connector Quick Start Guide

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

The following sections describe how to use the Oracle WebLogic Server console to configure Oracle WebLogic Tuxedo Connector to allow Oracle WebLogic Server to interoperate with Tuxedo Releases 6.5 and higher:

- [Where to Find Oracle WebLogic Tuxedo Connector Samples](#)
- [Configuring the Oracle WebLogic Tuxedo Connector](#)
- [Configuring Oracle Tuxedo](#)
- [Run the Example](#)

## Where to Find Oracle WebLogic Tuxedo Connector Samples

For this release of Oracle WebLogic Tuxedo Connector (WTC), samples are available on the Oracle Technology Network website. 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.

# Configuring the Oracle WebLogic Tuxedo Connector

**Note:** This section summarizes how to configure the Oracle WebLogic Tuxedo Connector 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 Oracle WebLogic Tuxedo Connector using the Administration Console:

- [Build the Simpapp Example](#)
- [Create a WTC Service](#)
- [Create a Local Oracle Tuxedo Access Point](#)
- [Create a Remote Oracle Tuxedo Access Point](#)
- [Create Exported Services](#)
- [Create Imported Services](#)
- [Target mySimpapp to the examplesServer](#)
- [Register TDOM1 as an Oracle WebLogic Server User](#)

## Build the Simpapp Example

**Note:** You may want to enable tracing to monitor Oracle WebLogic Tuxedo Connector. See [Monitoring the Oracle WebLogic Tuxedo Connector](#).

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 `simpserv` sample. For example, `SAMPLES_HOME\server\examples\src\examples\wtc\atmi\simpserv` 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 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.

## Create a WTC Service

Use the following steps to create and configure a WTC service using the Oracle WebLogic Server 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.

## 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 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.

## Create a Remote Oracle Tuxedo Access Point

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

1. In the 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.

## Create Exported Services

Use the following steps to configure an exported service:

1. In the 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.

## Create Imported Services

Use the following steps to configure an imported service:

1. In the 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.

## Target mySimpapp to the examplesServer

1. In the 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.

## 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.

# 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\simpserv` directory to your Oracle Tuxedo `simpapp` directory.
8. Modify the `ubbdomain` for your Oracle Tuxedo environment. This includes setting the pathnames 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 domlconfig file.

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

12. Build the tolower client

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

13. Boot the Tuxedo domain

```
tmboot -y
```

## Run the Example

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

## 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

## 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
```

