

# WebLogic Server 12c T3 Tunneling

Steps:

1. Login into WebLogic Server Administration Console 12c through Oracle JCS
2. Click on “Environments” tab in left-side menu

The screenshot shows the WebLogic Server Administration Console 12c interface. The left-hand navigation pane is expanded to the 'Environments' tab, showing a tree structure with 'TestJCS\_domain' selected. The main content area displays the 'Summary of Environment' page. This page includes a 'Change Center' section with 'View changes and restarts' and 'Lock & Edit' buttons. Below this is the 'Domain Structure' tree. The 'How do I...' section lists tasks like 'Create Managed Servers', 'Start and stop servers', 'Create a cluster', 'Configure default network connections', and 'Configure startup classes'. The main content area features a 'Summary of Environment' table with sections like Servers, Clusters, Server Templates, Migratable Targets, Coherence Clusters, Resource Groups, Resource Group Templates, Machines, and Virtual Hosts. Each section provides a brief description of its function within the WebLogic Server environment.

Section	Description
<b>Servers</b>	A server is an instance of WebLogic Server that runs in its own Java Virtual Machine (JVM) and has its own configuration.
<b>Clusters</b>	A cluster is a deployment in which multiple WebLogic Server instances (servers) run simultaneously and work together to provide increased scalability and reliability. A cluster appears to clients to be a single WebLogic Server instance. The servers that constitute a cluster can run on the same machine, or be located on different machines.
<b>Server Templates</b>	A server template is a prototype server, allowing administrators to easily configure shared settings for homogenous servers.
<b>Migratable Targets</b>	A Migratable Target is a target that is active on at most one server of a cluster at a time.
<b>Coherence Clusters</b>	A Coherence cluster is a group of Coherence nodes that share a group address which allows them to communicate. Coherence nodes can be applications, modules, or application servers (WebLogic Server instances or stand-alone cache servers). Coherence clusters enable applications to share data management and caching services among server instances and clusters hosting the applications that need access to them.
<b>Resource Groups</b>	Resource Groups are a named collection of related deployable resources, such as Java EE applications and the data sources, JMS artifacts, and other resources that the applications use.
<b>Resource Group Templates</b>	Resource Group Templates are a named, domain-level collection of deployable resources intended to be used as a pattern by multiple resource groups.
<b>Machines</b>	A machine is the logical representation of the computer that hosts one or more WebLogic Server instances (servers). WebLogic Server uses configured machine names to determine the optimum server in a cluster to which certain tasks, such as HTTP session replication, are delegated. The Administration Server uses the machine definition in conjunction with the Node Manager application to start remote servers.
<b>Virtual Hosts</b>	A virtual host is a set of host names to which WebLogic Server instances (servers) or clusters respond. When you use virtual hosting, you use DNS to specify one or more host names that map to the IP address of a server or cluster. You also specify which Web applications are served by each virtual host.

3. Click on “Servers”

The screenshot shows the 'Summary of Servers' page in the WebLogic Server Administration Console 12c. The page has two tabs: 'Configuration' and 'Control'. The 'Configuration' tab is active. The page includes a description of a server and a table of configured servers. The table has columns for Name, Type, Cluster, Machine, State, Health, and Listen Port. There are two servers listed: 'TestJCS\_adminserver(admin)' and 'TestJCS\_server\_1'. Both are in a 'Configured' state and running on 'TestJCS\_machine\_1'. The 'TestJCS\_server\_1' server is listening on port 9073.

Name	Type	Cluster	Machine	State	Health	Listen Port
TestJCS_adminserver(admin)	Configured		TestJCS_machine_1	RUNNING	OK	9071
TestJCS_server_1	Configured	TestJCS_cluster	TestJCS_machine_1	RUNNING	OK	9073

- Click on your provisioned server and then click on “Protocols” Tab at top.

Settings for TestJCS\_server\_1

Configuration **Protocols** Logging Debug Monitoring Control Deployments Services Security Notes

General HTTP **Protocols-Tab - Selected** Channels

Click the **Lock & Edit** button in the Change Center to modify the settings on this page.

Save

Use this page to configure connection settings for various communication protocols that this server can use. All settings on this page apply to connections that use the server's default listen port and listen address. If you create network channels for this server, each channel can override these settings.

<b>Complete Message Timeout:</b>	<input type="text" value="480"/>	The maximum number of seconds that this server waits for a complete message to be received. If you configure network channels for this server, each channel can override this message timeout. <a href="#">More Info...</a>
<b>Idle Connection Timeout:</b>	<input type="text" value="65"/>	The maximum number of seconds that a connection is allowed to be idle before it is closed by the server. The T3 and T3S protocols ignore this attribute. If you configure network channels for this server, each channel can override this idle connection message timeout. <a href="#">More Info...</a>
<input checked="" type="checkbox"/> <b>Enable Tunneling</b>		Specifies whether tunneling for the T3, T3S, HTTP, HTTPS, IIOP, and IIOPS protocols should be enabled for this server. <a href="#">More Info...</a>
<b>Tunneling Client Ping:</b>	<input type="text" value="45"/>	The interval (in seconds) at which to ping a tunneled client to see if it is still alive. <a href="#">More Info...</a>
<b>Tunneling Client Timeout:</b>	<input type="text" value="300"/>	The amount of time (in seconds) after which a missing tunneled client is considered dead. <a href="#">More Info...</a>

- Click “Lock and Edit” at top-left corner. Select “Enable Tunneling”

Settings for TestJCS\_server\_1

Configuration **Protocols** Logging Debug Monitoring Control Deployments Services Security Notes

General HTTP JCOM IIOP Channels

Save

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<b>Complete Message Timeout:</b>	<input type="text" value="480"/>	The maximum number of seconds that this server waits for a complete message to be received. If you configure network channels for this server, each channel can override this message timeout. <a href="#">More Info...</a>
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<b>Tunneling Client Ping:</b>	<input type="text" value="45"/>	The interval (in seconds) at which to ping a tunneled client to see if it is still alive. <a href="#">More Info...</a>
<b>Tunneling Client Timeout:</b>	<input type="text" value="300"/>	The amount of time (in seconds) after which a missing tunneled client is considered dead. <a href="#">More Info...</a>
<b>Maximum Message Size:</b>	<input type="text" value="10000000"/>	The maximum number of bytes allowed in messages that are received over all supported protocols, unless overridden by a protocol-specific setting or a custom channel setting. <a href="#">More Info...</a>

Save

6. Now, you need to create T3 Channel for your WebLogic server. Click on “Channels” Tab

Settings for TestJCS\_server\_1

Configuration **Protocols** Logging Debug Monitoring Control Deployments Services Security Notes

General HTTP jCOM IIOP **Channels**

Network channels allow you to manage quality of service, meet varying connection requirements, and improve utilization of your systems and network resources.

This Network Channels page displays key information about each network channel that has been configured for this server.

[Customize this table](#)

**Network Channels**

[New](#) [Clone](#) [Delete](#) Showing 1 to 4 of 4 Previous | Next

<input type="checkbox"/>	Name	Protocol	Enabled	Listen Address	Listen Port	Public Address	Public Port
<input type="checkbox"/>	External-t3	t3	true	129.213.33.219	7001	129.213.33.219	7001
<input type="checkbox"/>	External-t3s	t3s	true	129.213.33.219	7004	129.213.33.219	7004
<input type="checkbox"/>	ExternContent	http	true	129.213.33.219	8001	129.213.33.219	8001
<input type="checkbox"/>	SecuredExternContent	https	true	129.213.33.219	8002	129.213.33.219	8002

[New](#) [Clone](#) [Delete](#) Showing 1 to 4 of 4 Previous | Next

7. Click on “New”. Select Protocol : “t3” and Name your channel and click “Next”

**Create a New Network Channel**

[Back](#) [Next](#) [Finish](#) [Cancel](#)

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**Create a new Network Channel.**

Identity Properties

\* Indicates required fields

What would you like to name your new Channel?

\* **Name:**

What protocol will be used on this channel?

\* **Protocol:**

[Back](#) [Next](#) [Finish](#) [Cancel](#)

8. Type in your WebLogic IP address as “Listen Address” and the port on which you want the server to listen through t3-protocol and “finish” and click on “Release Configuration” on top-left corner.

**Create a New Network Channel**

[Back](#) [Next](#) [Finish](#) [Cancel](#)

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**Create a new Network Channel.**

Network Channel Addressing

How would you like to address your new Network Channel?

**Listen Address:**

**Listen Port:**

**External Listen Address:**

**External Listen Port:**

[Back](#) [Next](#) [Finish](#) [Cancel](#)