



**ORACLE<sup>®</sup>**

## **Introduction to WLS Console**

# Two-Phase Configuration Changes

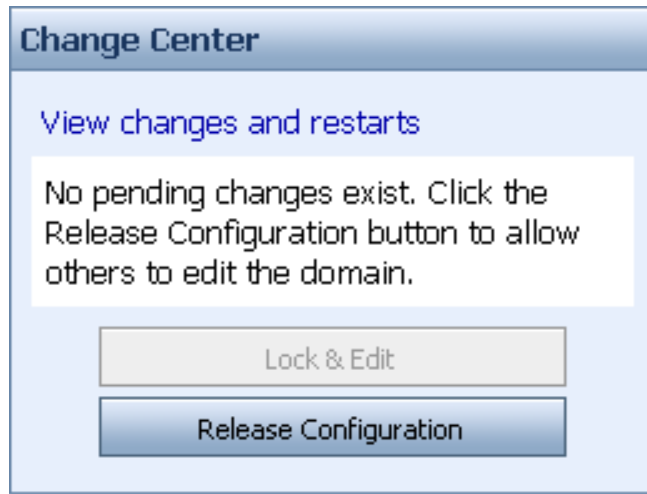
- Changes activated in batches:
  - Reliability, consistency:
    - Make (related) changes as a group
    - Validate before making the change
    - Activate or Roll back as a single unit (all changes on all servers)
- General process:
  - Get an edit lock
  - make changes
    - changes are stored in the pending directory
  - activate your changes (with implicit validation through the Admin Console or WLST)
    - changes are distributed to servers in the domain
    - Two phases: prepare and commit
    - Prepared on all servers; any failures will cause total rollback

# WLS Console

- Deployed Lazily on Admin Server
  - <http://adminserverHost:AdminServerPort/console>
  - Manages a WebLogic Domain
    - Applications Deployment
    - Resource Management
    - Configuration Management
    - Lifecycle
    - Diagnostics

# Administration Console Overview

## Components

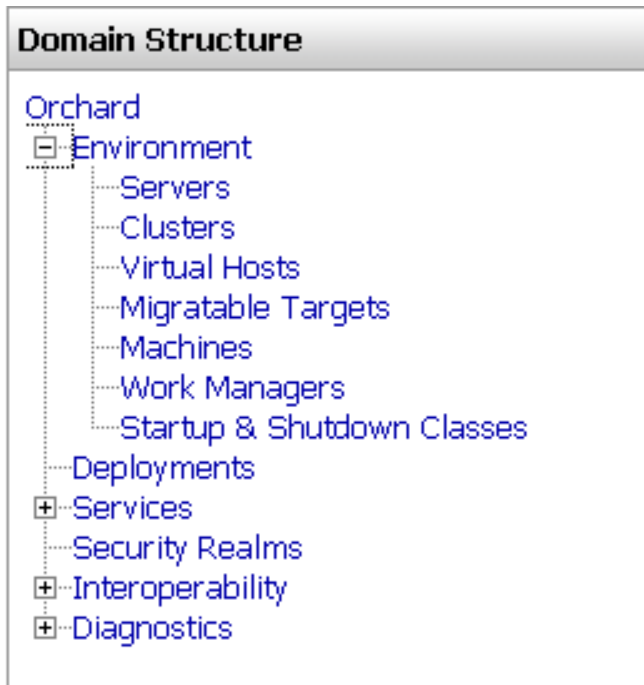


## Change Center

- Context sensitive
- Interact with Configuration Locks
- Optional in Development Mode

# Administration Console Overview

## Components



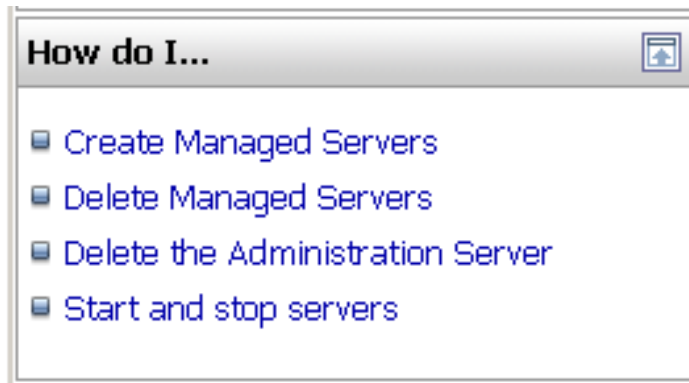
## Domain Structure

- Navigation Tree
- Defined in jsp
- Supported by tag library
- Extensibility interface to extend

# Administration Console Overview

## Components

### Context Sensitive Help



- Links to associated documentation for a console page
- Each portal page can define context key
- Serviced by help webapp

# Administration Console Overview

## Components



### Tool Bar

- Identifies domain, user
- Links to common features
- Always present

# Administration Console Overview Components

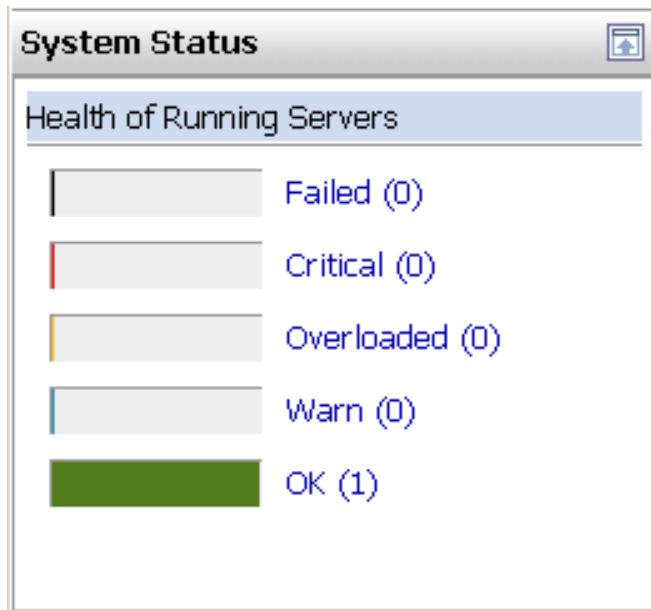
Home > Summary of Servers > AdminServer > **Summary of Migratable Targets**

## Breadcrumb Navigation

- Trail of links to artifacts visited
- Only one entry created / artifact
- Last 10 artifacts
- Home page always present
- Not topology



# Administration Console Overview Components



## System Status

- Summary of current subsystem health
- Updated with each page refresh

# Administration Console Overview

## Components

### Messages

- ⚠ For server AdminServer, the Node Manager associated with machine Aldebaran is not reachable.
- ⚠ For server AppleTree, the Node Manager associated with machine Aldebaran is not reachable.
- ⚠ For server CherryTree, the Node Manager associated with machine Aldebaran is not reachable.
- ⚠ All of the servers selected are currently in a state which is incompatible with this operation or are not associated with a running Node Manager or you are not authorized to perform the action requested. No action will be performed.

## Message Portlet

- Messages resulting from an operation (ie, Start selected Servers)
- Consistent Feedback
- Only visible when messages present

# Administration Console Overview

## Components

### Content Pane

- Table pages
- Configuration Pages
- Assistants

#### Summary of Migratable Targets

Configuration **Control**

This page allows you to customize the column display in the table, create a new migratable target, and delete a migratable target. A migratable target is a target that is active on at-most one server of a cluster at a time and which controls the servers that can host a pinned migratable service. Migratable services include JMS servers, SAF agents, path service, and custom persistent stores. You can manually migrate a migratable target or you configure it for automatic migration.

[▶ Customize this table](#)

**Migratable Targets (Filtered - More Columns Exist)**

Showing 1 - 7 of 7 Previous | Next

| <input type="checkbox"/> | Name                    | Cluster    | User Preferred Server |
|--------------------------|-------------------------|------------|-----------------------|
| <input type="checkbox"/> | AppleTree (migratable)  | FruitTrees | AppleTree             |
| <input type="checkbox"/> | CherryTree (migratable) | FruitTrees | AppleTree             |
| <input type="checkbox"/> | MigratableTarget-0      | FruitTrees | PearTree              |
| <input type="checkbox"/> | MigratableTarget-1      | FruitTrees | OrangeTree            |
| <input type="checkbox"/> | MigratableTarget-2      | FruitTrees | AppleTree             |
| <input type="checkbox"/> | OrangeTree (migratable) | FruitTrees | OrangeTree            |
| <input type="checkbox"/> | PearTree (migratable)   | FruitTrees | PearTree              |

Showing 1 - 7 of 7 Previous | Next



Home > Summary of Servers

## Change Center

### View changes and restarts

Click the Lock & Edit button to modify, add or delete items in this domain.

Lock & Edit

Release Configuration

## Domain Structure

LilCluster

- [-] Environment
  - [-] Deployments
- [-] Services
  - [-] Security Realms
- [-] Interoperability
- [-] Diagnostics

## How do I...

- [-] Start and stop servers
- [-] Start Managed Servers from the Administration Console
- [-] Start Managed Servers in Admin mode
- [-] Start Managed Servers in a cluster
- [-] Configure the domain-wide administration port

## Summary of Servers

**Configuration** | Control

Use this page to change the state of the servers in this WebLogic Server domain. Control operations on Managed Servers require starting the Node Manager. Starting Managed Servers in Standby mode requires the domain-wide administration port.



Customize this table

### Servers(Filtered - More Columns Exist)

[Start](#) | [Resume](#) | [Suspend](#) | [Shutdown](#) | [Restart SSL](#)

Showing 1 - 3 of 3 Previous | Next

| <input type="checkbox"/>            | Server ^           | Machine   | State   | Status of Last Action | Processor Load | Heap Size Current |
|-------------------------------------|--------------------|-----------|---------|-----------------------|----------------|-------------------|
| <input type="checkbox"/>            | AdminServer(admin) | Aldebaran | RUNNING | None                  | 73%            | 107487232         |
| <input checked="" type="checkbox"/> | AppleTree          | Aldebaran | RUNNING | TASK COMPLETED        | 12%            | 67108864          |
| <input type="checkbox"/>            | CherryTree         | Aldebaran | RUNNING | TASK COMPLETED        | 14%            | 67108864          |

[Start](#) | [Resume](#) | [Suspend](#) | [Shutdown](#) | [Restart SSL](#)

Showing 1 - 3 of 3 Previous | Next

# Examples

- Examples 1: Changing a listen port

# Changing Admin Server Listen Port

The screenshot shows a web browser window titled "Oracle WebLogic Server Administration Console". The address bar contains the URL "http://sta00224.us.oracle.com:7001/console/login/LoginForm.jsp". The browser's search bar contains "usecanonical names". The page content includes the Oracle logo and "WebLogic Server® 11g Administration Console" with a large "11g" watermark. A "Welcome" dialog box is displayed, prompting the user to log in with the "weblogic" username and a masked password. A "Log In" button is visible. At the bottom of the page, the text reads: "WebLogic Server Version: 10.3.1.0. Copyright © 1996,2008, Oracle and/or its affiliates. All rights reserved. Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners." The browser's status bar at the bottom shows "Done".

# Expand Environment Tree Node

The screenshot displays the Oracle WebLogic Server Administration Console interface. The top navigation bar includes the Oracle logo, the text "WebLogic Server® Administration Console", and user information: "Welcome, weblogic" and "Connected to: APPLCORE\_DOMAI".

On the left side, there are three main panels:

- Change Center:** Contains a link to "View changes and restarts" and a note: "Configuration editing is enabled. Future changes will automatically be activated as you modify, add or delete items in this domain."
- Domain Structure:** A tree view showing the hierarchy of the domain. The "Environment" node is highlighted with a red box, indicating it is the current selection. Other nodes include "APPLCORE\_DOMAIN", "Deployments", "Services", "Security Realms", "Interoperability", and "Diagnostics".
- How do I...:** A list of links for user assistance: "Search the configuration", "Use the Change Center", "Record WLST Scripts", "Change Console preferences", and "Monitor servers".
- System Status:** A section titled "Health of Running Servers" showing a bar chart with the following status counts: Failed (0), Critical (0), Overloaded (0), Warning (0), and OK (1).

The main content area is titled "Home Page" and is divided into several sections:

- Information and Resources:** Includes "Helpful Tools" (Configure applications, Recent Task Status, Set your console preferences) and "General Information" (Common Administration Task Descriptions, Read the documentation, Ask a question on Oracle eSupport, Oracle Guardian Overview).
- Domain Configurations:** A central section with sub-sections:
  - Domain:** Contains a link to "Domain".
  - Environment:** Contains links to "Servers", "Clusters", "Virtual Hosts", "Migratable Targets", "Machines", "Work Managers", and "Startup And Shutdown Classes".
  - Services:** Contains links to "Messaging" (JMS Servers, Store-and-Forward Agents, JMS Modules, Path Services, Bridges), "JDBC" (Data Sources, Multi Data Sources, Data Source Factories), "Persistent Stores", "XML Registries", "XML Entity Caches", "Foreign JNDI Providers", "Work Contexts", "jCOM", "Mail Sessions", "FileT3", and "JTA".
  - Interoperability:** Contains links to "WTC Servers" and "Jolt Connection Pools".
  - Diagnostics:** Contains links to "Log Files", "Diagnostic Modules", "Diagnostic Images", "Archives", "Context", and "SNMP".
- Your Deployed Resources:** Contains a link to "Deployments".
- Your Application's Security Settings:** Contains a link to "Security Realms".

# Click on Servers

The screenshot displays the Oracle Enterprise Manager console interface. On the left, the 'Domain Structure' tree is visible under the 'APPLCORE\_DOMAIN' node. The 'Environment' node is expanded, and the 'Servers' sub-node is circled in red. Other nodes in the tree include Clusters, Virtual Hosts, Migratable Targets, Machines, Work Managers, Startup & Shutdown Classes, and Deployments. On the right, the 'Helpful Tools' section contains three items: 'Configure applications', 'Recent Task Status', and 'Set your console preferences'. Below this, the 'Domain Configurations' section is expanded to show a 'Domain' node.

**Domain Structure**

- APPLCORE\_DOMAIN
  - Environment
    - Servers
    - Clusters
    - Virtual Hosts
    - Migratable Targets
    - Machines
    - Work Managers
    - Startup & Shutdown Classes
  - Deployments

**Helpful Tools**

- Configure applications
- Recent Task Status
- Set your console preferences

**Domain Configurations**

Domain



- Domain



# Click on Admin Server Link

[Customize this table](#)

## Servers (Filtered - More Columns Exist)

|                                    |   |                                       |   |              |  |                    |
|------------------------------------|---|---------------------------------------|---|--------------|--|--------------------|
| <input type="button" value="New"/> | <input type="button" value="Clone"/>  | <input type="button" value="Delete"/> | Showing 1 to 1 of 1 <a href="#">Previous</a>   <a href="#">Next</a> |              |  |                    |
| <input type="checkbox"/>           | <b>Name</b>  | <b>Cluster</b>                        | <b>Machine</b>  | <b>State</b> | <b>Health</b>  | <b>Listen Port</b> |
| <input type="checkbox"/>           | <a href="#">AdminServer(admin)</a>  |                                       | sta00224.us.oracle.com  | RUNNING      |  OK | 7001               |
| <input type="button" value="New"/> | <input type="button" value="Clone"/>  | <input type="button" value="Delete"/> | Showing 1 to 1 of 1 <a href="#">Previous</a>   <a href="#">Next</a> |              |  |                    |

# Change Listen Port Field and Save

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

**General** Cluster Services Keystores SSL Federation Services Deployment Migration Tuning Overload Health Monitoring Server Start

Save

Use this page to configure general features of this server such as default network communications.

[View JNDI Tree](#)

|  |                                    |  |
|--|------------------------------------|--|
| <b>Name:</b>   | AdminServer                        | An alphanumeric name for this server instance. <a href="#">More Info...</a>  |
| <b>Machine:</b>  | sta00224.us.oracle.com             | The WebLogic Server host computer (machine) on which this server is meant to run. <a href="#">More Info...</a>                   |
| <b>Cluster:</b>  | (Stand-Alone)                      | The cluster, or group of WebLogic Server instances, to which this server belongs. <a href="#">More Info...</a>                   |
| <b>Listen Address:</b>   | <input type="text"/>               | The IP address or DNS name this server uses to listen for incoming connections. <a href="#">More Info...</a>                     |
| <input checked="" type="checkbox"/> <b>Listen Port Enabled</b> |                                    | Specifies whether this server can be reached through the default plain-text (non-SSL) listen port. <a href="#">More Info...</a>  |
| <b>Listen Port:</b>  | <input type="text" value="7001"/>  | The default TCP port that this server uses to listen for regular (non-SSL) incoming connections. <a href="#">More Info...</a>    |
| <input type="checkbox"/> <b>SSL Listen Port Enabled</b>        |                                    | Indicates whether the server can be reached through the default SSL listen port. <a href="#">More Info...</a>                    |
| <b>SSL Listen Port:</b>  | <input type="text" value="7002"/>  | The TCP/IP port at which this server listens for SSL connection requests. <a href="#">More Info...</a>                           |
| <input type="checkbox"/> <b>Client Cert Proxy Enabled</b>      |                                    | Specifies whether the HttpClusterServlet proxies the client certificate in a special header. <a href="#">More Info...</a>        |
| <b>Java Compiler:</b>  | <input type="text" value="javac"/> | The Java compiler to use for all applications hosted on this server that need to compile Java code. <a href="#">More Info...</a> |

[Advanced](#)

Save

# Creating a machine via WLS Console

Home > Summary of Environment

## Summary of Environment

WebLogic Server can host your applications on multiple server instances, each of which can run on a different computer and specify its own network address. You can also group servers into clusters to ensure that your applications are always available even if one server instance fails.

Use this section of the Administration Console to create, configure, and control servers and clusters.

| Section                                      | Description   |
|--|---|
| <a href="#">Servers</a>                      | A server is an instance of WebLogic Server that runs in its own Java Virtual Machine (JVM) and has its own configuration.   |
| <a href="#">Clusters</a>                     | 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.  |
| <a href="#">Virtual Hosts</a>                | 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.   |
| <a href="#">Migratable Targets</a>           | A Migratable Target is a target that is active on at most one server of a cluster at a time.  |
| <a href="#">Machines</a>                     | 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. |
| <a href="#">Work Managers</a>                | A Work Manager defines a set of request classes and thread constraints that manage work performed by WebLogic Servers. J2EE Applications, Web Application Modules, EJBs, and RMI applications can specify a named work manager to use for managing their work requests.   |
| <a href="#">Startup and Shutdown Classes</a> | Startup and shutdown classes are Java programs that you create to provide custom, system-wide services for your applications. You add the classes to the WebLogic Server class path and then configure them to load and run when a server starts or shuts down.   |

# Adding the New Machine

Home > Summary of Environment > Summary of Machines

## Summary of Machines

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 Node Manager to start remote servers.

This page displays key information about each machine that has been configured in the current WebLogic Server domain.

[Customize this table](#)

### Machines

[New](#) [Clone](#) [Delete](#)

Showing 0 to 0 of 0 [Previous](#) | [Next](#)

| <input type="checkbox"/>      | Name | Type |
|-------------------------------|------|------|
| There are no items to display |      |      |

[New](#) [Clone](#) [Delete](#)

Showing 0 to 0 of 0 [Previous](#) | [Next](#)

# Inputting Machine Parameters

Home > Summary of Environment > Summary of Machines

---

**Create a New Machine**

OK Cancel

---

**Machine Properties**

The following properties will be used to identify your new Machine.

\* Indicates required fields

---

What would you like to name your new Machine?

\* **Name:**

---

Specify the type of machine operating system.

**Machine OS:**

---

OK Cancel

# Completion

Home > Summary of Environment > Summary of Machines

## Messages

✔ All changes have been activated. No restarts are necessary.

🔄 Machine created successfully

## Summary of Machines

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🔗 [Customize this table](#)

## Machines

[New](#) [Clone](#) [Delete](#)

Showing 1 to 1 of 1 [Previous](#) | [Next](#)

| <input type="checkbox"/> | Name                   | Type        |
|--------------------------|------------------------|-------------|
| <input type="checkbox"/> | sta00224.us.oracle.com | UnixMachine |

[New](#) [Clone](#) [Delete](#)

Showing 1 to 1 of 1 [Previous](#) | [Next](#)