# Creating Additional Administrative Users

# Users and Groups

- – WLS Embedded LDAP
- – Security Realms
- – Configuring Users, Groups, and Roles

# Security Realms

- A *security realm is a collection of system resources* and security service providers.
- Only one security realm can be active at a given time.
- A single security policy is used in any realm.
- Users must be recognized by an authentication provider of the security realm.
- Admin tasks include creating security realms.

# What Is LDAP?

- The Lightweight Directory Access Protocol
- It is derived from X.500.
- It provides a hierarchical lookup service.
- It supports sophisticated searching.
- It can be secured via SSL.

# Embedded LDAP Server

- In WLS, users, groups, and authorization information is stored in an embedded LDAP server.

- Several properties can be set to manage the LDAP server, including:
  - Credentials
  - Backup settings
  - Cache settings
  - Replication settings

# Users and Groups

- *Users are entities that use WLS such as:*
  - Application end users
  - Client applications
  - Other WebLogic Servers
- *Groups are:*
  - Logical sets of users
  - More efficient for managing a large number of users

# Configuring New Users

# Groups

- WLS provides the flexibility to organize groups invarious ways:


  – Groups can contain users.
  – Groups can contain other groups.

# Configuring New Groups

# Adding Groups to Users

# Roles

- A *role refers to a set of users who have the same permissions.*
- A role differs from a group; a group has static membership; a role is conditional.
- A user and group can be granted multiple roles.
- There are two types of roles: global-scoped roles and resourcescoped roles.
- These global roles are available by default: Admin, Operator, Deployer, and Monitor.
- Roles defined in deployment descriptors can be *inherited.*
  – Occurs at deployment time
  – Can be disabled
- You can manage role definitions and assignments without editing deployment descriptors or redeploying.

# Migrating Security Data

- You can export users/groups, security policies, security roles, or credential maps between security realms or domains.
- It is useful, for example, in transitioning from development to QA to production.
- You can use migration constraints (key/value pairs) to specify the export/import options.
- Currently the system only supports migrating security data between WLS security providers.

# Virtual Host

- Have one or more Web addresses associated with them(Domain name and IP address)
- Allow you to make one Web server behave as if it were multiple servers
- Virtual hosting can be used to allow one Web server to host multiple internal and external corporate sites.
- It is often convenient to have the same Web server respond to requests for more than one domain name.

# Understanding Virual host

Requests for www.example.com

Web App 1

Web App 2

VirtualHost1

Web App 3

VirtualHost2

Web App 4

Web App 5
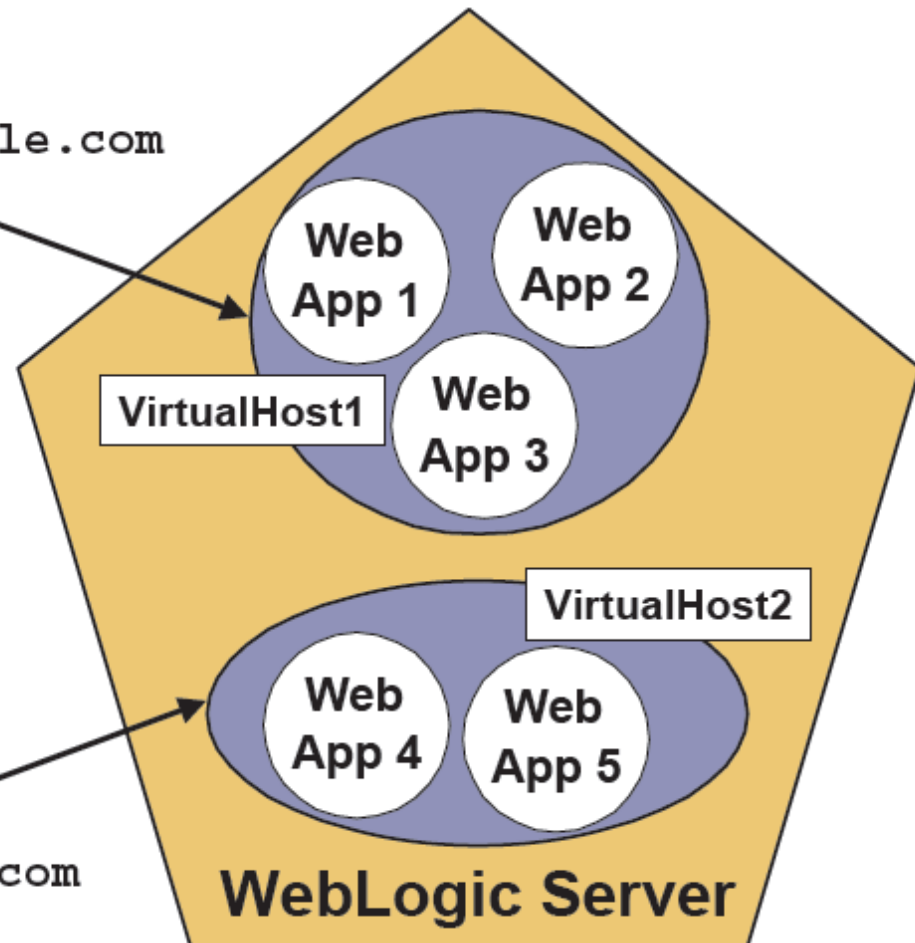
Requests for www.demo.com

**WebLogic Server**

# Configuring Virtual Hosts

1. Create the virtual host in the administration console.

2. Target the virtual host to a server.

3. Target applications to the virtual host.

4. Resolve DNS names in a system host file.

# Creating a Virtual Host

# Cluster in Networks

- WebLogic Server clusters can be created in three different kinds of networks:
  - Local Area Networks (LAN)
  - Metropolitan Area Networks (MAN)
  - Wide Area Networks (WAN)
- When you are configuring your cluster, you will need to keep in mind the type of network you are using.

# LAN

- A local area network serves a local set of computers.

  – They usually use high quality, high-speed communication links.

  – Typical data transmission speeds are 100 megabits/second.

- Most clusters exist within a single LAN.

# Metropolitan Area Networks

- A MAN is a network that usually spans a campus or a city.

- You can have different clusters located reasonably close to each other within a MAN.

- When using clusters within a MAN, you could distribute your servers through the different

  locations within the MAN, or you could create separate clusters in different parts of the MAN.

# Wide Area Networks

- A WAN usually spans a wider geographical area and can be made up of smaller MANs and LANs.

- You can have different clusters located in different regions within a WAN.

  – A cluster can be located in different LANs within a MAN or within a WAN.

# Configuring a Cluster

- **Preparing for a Cluster**
  - Cluster License
  - Cluster Architecture
  - Network and Security Topology
  - Machines
  - Names and Addresses
- Configuring a Cluster

# Preparing Your Environment

Before you can configure a cluster, there are steps you need to take to prepare your environment.

– Obtain a cluster license.

– Determine your cluster architecture.

– Understand your network and security topologies.

– Choose the machines for the cluster installation.

– Identify IP Addresses or DNS names, and port numbers for the server instances in the cluster.

# Cluster Architecture

- Will you be using a single tier or a multi-tier architecture?

- How are you going to do your load balancing?

  – Are you going to use basic WebLogic server load      balancing?

  – Will you use a third-party load balancer?

- Are you going to use demilitarized zones with firewalls?

# Network and Security Topology

- Will your cluster exist in a single LAN?

- Will your cluster span a MAN or a WAN?

- Depending on the network topology you choose, your security requirements will change.

  – Some network topologies can interfere with multicast communications.

  – Avoid deploying server instances in a cluster across a firewall.

# Security Options for Cluster Architectures

- For proxy architectures you could have:
  - A single firewall between untrusted clients and the Web server layer
  - A firewall between the proxy layer and the cluster
- When using a load balancer, in addition to the security features provided with the load balancer, you may want to place a firewall between it and untrusted clients.
- When you use a single database supporting both internal and external data:
  - Place an additional firewall in front of the database server

# Hardware

- You may set up a cluster on a single, non-multihomed computer for demonstration or development.
  - This is not practical for production environments.
- The machine cannot have a dynamically assigned IP address.
- There is no built-in limit for the number of server instances in a cluster.
  - The only limitation is your license.
  - Large, multi-processor servers can host large clusters.
  - The recommendation is one WebLogic Server instance for every two CPUs.

# Cluster Configuration
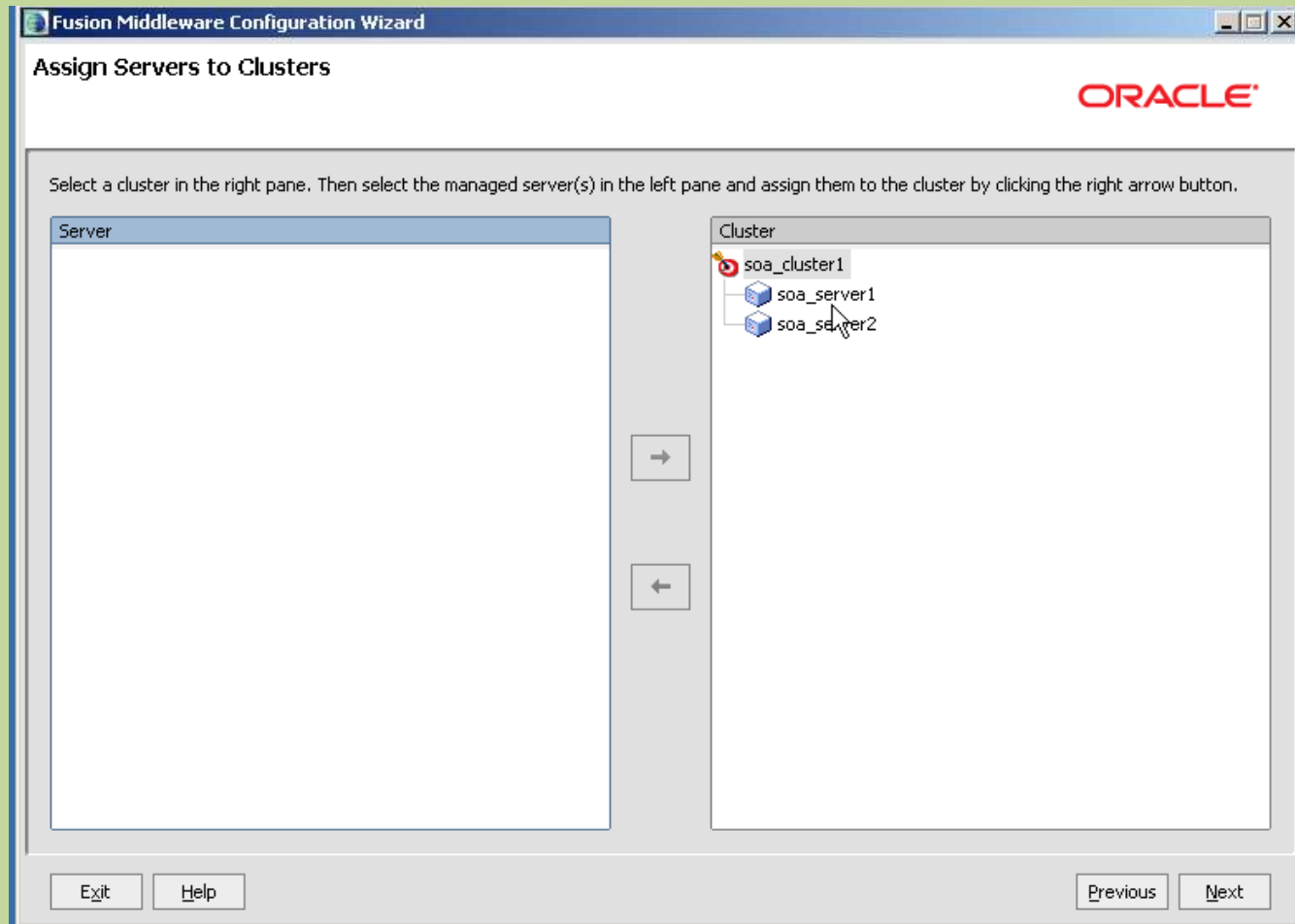
# Configure Machines for Soa

# Map servers and Machines
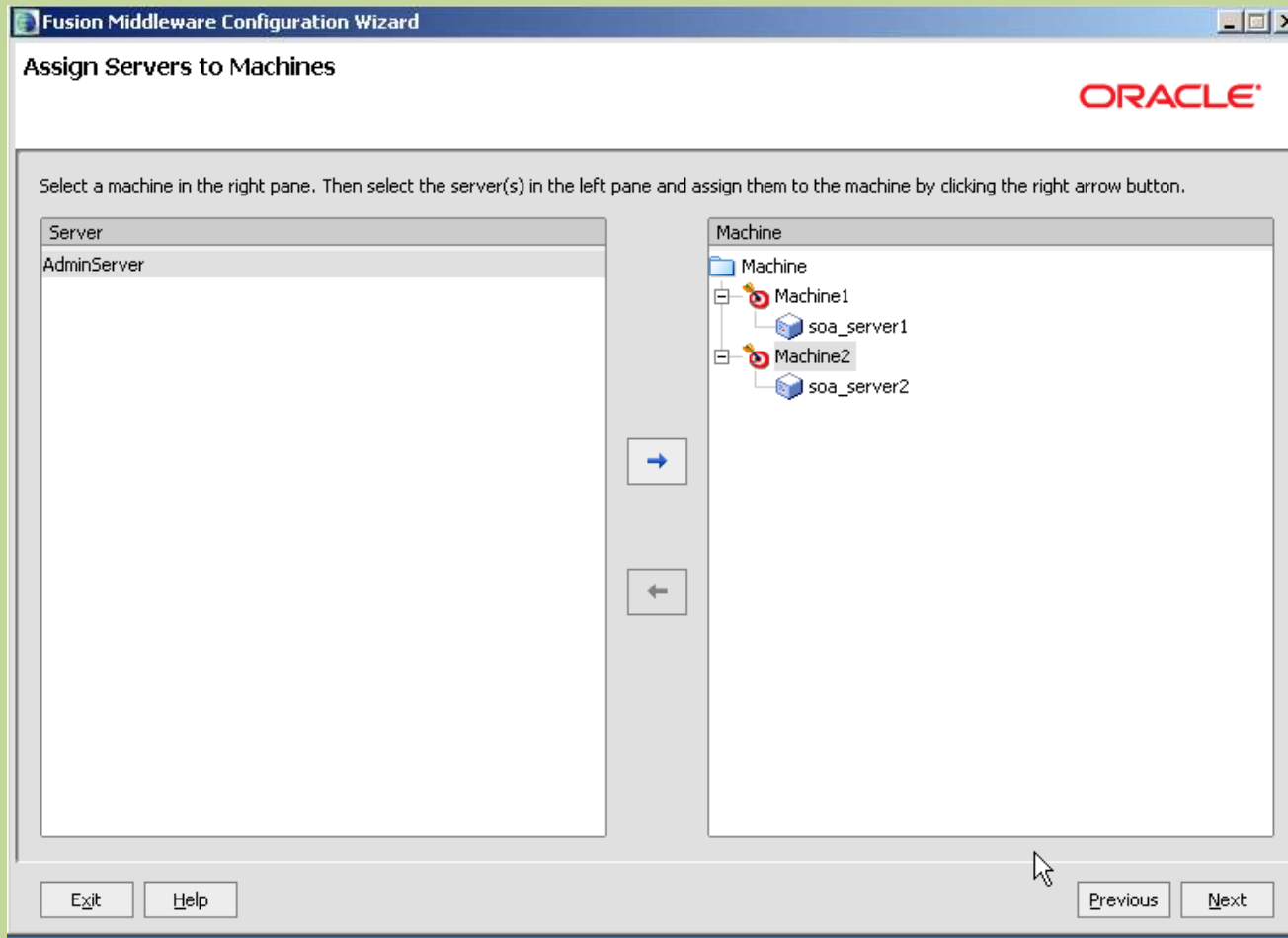
# Configure E-Biz Datasource

- Using Oracle E-Business Suite Data Sources: AppsDataSource

- E-Biz Release 12.1.1, No prereqs required.

- Download from My Oracle Support and unzip the patch zip file. The zip file contains:
  - fndext.jar
  - HelloWorld.war (with source code)
  - README.txt (please note that the README.txt in the jar file is obsolete and is replaced by this document)

- Copy the extracted fndext.jar file to a directory such as /tmp/work/ on the external application server machine.

# Steps to create a apps datasource

- Applying Patch 8571001

   No prereqs for 1211

1.copy fndext.jar to \tmp\work

2. Register the External Node and Generate the Desktop DBC File

3. Configuring AppsDataSource

4. Register the External Node and Generate the Desktop DBC File

# Configure required E-Biz user b

# Users page in the User Management responsibility

# Rebuilding the fndext.jar file and configure appsdatasource

- Rebuild fndext.jar using ant utility

- configure the data source from within the WebLogic Administration Console.

- Navigate to the Oracle WebLogic Administration Console for your application server:
http:// < your host > : < your port > /console

- Log in.

- Navigate to Domain Structure-->Services-->JDBC-->Data Sources

- Enter values for:
  - Database Name: (SID of Oracle E-Business Suite database)
  - Hostname (DB hostname)
  - Port (DB port)
  - DB username - Enter the valid Oracle E-Business Suite username (created in [Set Up Necessary Oracle E-Business Suite Users](#)) in UPPERCASE. The user should have the 'APPS_SCHEMA_CONNECT' permission or 'UMX|APPS_SCHEMA_CONNECT' role as described above. You do not use the APPS schema name here.
  - Password for the Oracle E-Business Suite user

- In the Properties field, add a new property: dbcFile= < full path of your adminDesktop dbc file ftp'd to WLS >

- Click the Test Configuration button. You will get a message indicating that the test has succeeded or failed.

- If the connection test succeeds, click Next. Check the check box for the appropriate server, and click Finish.

A Reliance Broadband | Document 974949.1 | Search User | Create a New JDBC Data S...

← → C ☆ http://hyder-server:7001/console/console.portal?CreateGlobalJDBCDataSourcePortlet_actionOverride=/com/bea/console/actions/jdbc/datasources/createjdbcdatasourc ▶ ⬇ ⚙

**ORACLE** WebLogic Server® Administration Console

**Change Center**

**View changes and restarts**

Configuration editing is enabled. Future changes will automatically be activated as you modify, add or delete items in this domain.

**Domain Structure**

soa_domain
⊟ Environment
  Deployments
⊟ Services
  ⊞ Messaging
  ⊞ JDBC
  Persistent Stores
  Foreign JNDI Providers
  Work Contexts
  XML Registries
  XML Entity Caches
  jCOM
  Mail Sessions
  File T1

**How do I...**

- Create JDBC data sources
- Create LLR-enabled JDBC data sources

**System Status**

**Health of Running Servers**

| | Failed (0) |
| | Critical (0) |
| | Overloaded (0) |
| | Warning (0) |
| | OK (1) |

🏠 Home  Log Out  Preferences  📊 Record  Help  [ ]  🔍

Welcome, system | Connected to: soa_domain

Home >Summary of JDBC Data Sources

Messages

✔ Connection test succeeded.

**Create a New JDBC Data Source**

[ Test Configuration ]  [ Back ]  [ Next ]  [ Finish ]  [ Cancel ]

**Test Database Connection**

Test the database availability and the connection properties you provided.

What is the full package name of JDBC driver class used to create database connections in the connection pool?

(Note that this driver class must be in the classpath of any server to which it is deployed.)

**Driver Class Name:**  oracle.apps.fnd.ext.jdbc.d

What is the URL of the database to connect to? The format of the URL varies by JDBC driver.

**URL:**  jdbc:oracle:thin:@hyder-s

What database account user name do you want to use to create database connections?

**Database User Name:**  ADSTEST1

What is the database account password to use to create database connections?

(Note: For secure password management, enter the password in the Password field instead of the Properties field below)

**Password:**  ••••••••••••••••

**Confirm Password:**  ••••••••••••••••