Oracle WebLogic Server 12cR2 on SUSE Linux Enterprise Server 12 (SP3) for x86-64
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Introduction

This document provides details on installing Oracle WebLogic Server 12cR2 on SUSE Linux Enterprise Server 12 (SP3). Details are provided for Intel(x86-64) versions of both Oracle WebLogic Server 12cR2 and SUSE Linux Enterprise Server 12. Similar steps apply to other platforms (x86, ia64, System z, etc.). If you encounter issues or have general questions, please post your query to suse-oracle@listx.novell.com.

Official Oracle product documentation is available at: http://docs.oracle.com/en/

System Requirements and Specifications

Hardware Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Minimum</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU</td>
<td>1-GHz CPU</td>
</tr>
<tr>
<td>Physical Memory</td>
<td>4 GB</td>
</tr>
<tr>
<td>Swap space</td>
<td>Approx. twice the size of RAM</td>
</tr>
<tr>
<td>Disk space in /tmp</td>
<td>2 GB</td>
</tr>
<tr>
<td>Disk space for software files</td>
<td>2 GB</td>
</tr>
</tbody>
</table>

Software Requirements

SUSE

- SUSE Linux Enterprise Server 12 SP3 (x86-64) (http://download.suse.de/install)

Oracle

- WebLogic Server 12cR2 (12.2.1.2.0) (fmw_12.2.1.2.0_wls_Disk1_1of1.zip) (http://www.oracle.com/technetwork/middleware/fusion-middleware/downloads/index.html)
  - Java SE Development Kit 8 (jdk-8u112-linux-x64.tar.gz) (http://www.oracle.com/technetwork/indexes/downloads/index.html#java)

Testing machine information

HP DL388 Gen9 Server
CPU: 2 * Intel(R) Xeon(R) CPU E5-2630 v3 @ 2.40GHz
RAM: 64 GB
NIC: 8
Local HDD: 2TB
OS: SUSE Linux Enterprise Server 12 SP3 (x86-64) - Kernel version: 4.4.73-5-default
Prerequisites

1. Installing SUSE Linux Enterprise Server 12

Install SUSE Linux Enterprise Server 12 on your testing machine. To do so, follow the instructions in the official SUSE Linux Enterprise Server documentation at https://www.suse.com/documentation/sles-12/.

Figure 1-1 Software Installed as shown below
In Yast, select the patterns you need. Make sure you select the patterns and packages required to run Oracle products.

**Figure 1-2 Software Installed as shown below**

After the installation of SUSE Linux Enterprise Server, the following information about the operating system and the kernel version is displayed.

**Figure 1-3 OS release information and kernel version**
2. Installing Java

2-1. Oracle WebLogic Server 12cR2 (12.2.1.2.0) requires JDK 1.8 version. Log in to the target system (SUSE Linux Enterprise Server 12 64-bit OS) as a non-admin user. Download Java SE Development Kit 8 (jdk-8u112-linux-x64.tar.gz) from [http://www.oracle.com/technetwork/indexes/downloads/index.html#java](http://www.oracle.com/technetwork/indexes/downloads/index.html#java)

2-2. Set environment variables JAVA_HOME and PATH to ensure the proper JDK version is installed and ready for use.

*Figure 2-1 Java information*
Oracle WebLogic Server 12cR2 Installation

1. Installing Oracle WebLogic Server software

1-1. Log in to the target system (SUSE Linux Enterprise Server 12 64-bit OS) as a non-admin user. Download the Oracle WebLogic Server 12cR2 (12.2.1.2.0) from http://www.oracle.com/technetwork/middleware/fusion-middleware/downloads/index.html.

(Note: Please ensure the installation user has the proper permissions to install and configure the software.)

1-2. Go to the directory where you downloaded the installation program. Extract the contents of this .zip (fmw_12.2.1.2.0_wls_Disk1_1of1.zip) file and launch the installation program by running `java -jar fmw.xxxx.jar`.

Install Flow:

1). Installation Inventory Setup.

If this is your first Oracle installation on a host that is running SLES, please use this screen to specify the location of the Oracle central inventory directory and Operating System Group Name, then click OK to continue.
2). Welcome.

Review the information on this screen carefully to be sure you have performed all the necessary prerequisites, then click **Next** to continue.
3). Auto Updates.

Select option "Skip Auto Updates" to skip this screen, then click **Next** to continue.
4). Installation Location.

Type the full path of the directory in the Oracle Home field, then click **Next** to continue.
5). Installation Type.

Use this screen to determine the type of installation you want to perform, then click **Next** to continue.
6). Prerequisite Checks.

Prerequisite Checks results will be shown as above, click **Next** to continue.
7). Security Updates.

If you wish to register your installation, enter your Email address and your My Oracle Support password. If you wish to decline registration, deselect "I wish to receive security updates via My Oracle Support" and confirm your choice.
8). Installation Summary.

This screen contains a list of the feature sets you selected for installation, along with the approximate amount of disk space to be used by the feature sets once installation is complete. Check the information, then click **Install** to continue.
9). Installation Progress.

This screen shows the progress of the installation. When the progress bar reaches 100%, the installation is complete. Click **Finish** to continue.
10). Installation Complete.

This screen appears at the conclusion of the installation. Select option "Automatically Launch the Configuration Wizard", then click Finish to dismiss the installer.
2. Creating and Configuring the WebLogic Domain

2-1. To begin domain configuration, you can automatically launch the Configuration Wizard through the option "Automatically Launch the Configuration Wizard" on the last Installation complete screen. You can also navigate to the 'ORACLE_HOME/oracle_common/common/bin' directory and start the WebLogic Server Configuration Wizard by running: './config.sh'.

Starting configuration:

1). Configuration Type.

Select option "Create a New Domain" and specify the Domain home directory in the "Domain Location" field, then click Next to continue.
2). Templates.

On the Templates screen select "Basic WebLogic Server Domain (selected by default)" and "WebLogic Coherence Cluster Extension" for configuration, then click Next to continue.
3). Administrator Account.

Specify the user name and password for the default WebLogic Administrator account for the domain, then click **Next** to continue.
4). Domain Mode and JDK.

Select "Development" in the Domain Mode field, select the "Oracle HotSpot" in the JDK field. Then click Next to continue.
5). Advanced Configuration.

According to your requirements, select the desired options on the Advanced Configuration screen. Then click Next to continue.
6). Configuration Summary.

Review this screen to verify the information is correct, then click **Create** to continue.
7). Configuration Progress.

The Configuration Progress screen as shown above, once you see: "Domain Created successfully", click **Next** to continue.
8). End Of Configuration.

Once you see: "Oracle Weblogic Server Configuration Succeeded", record the "Domain Location" and "Admin Server URL", then click Finish to dismiss the Configuration Wizard.
3. Starting the Administration Server and verifying the Configuration

3-1. To start the Administration Server through a terminal, go to the DOMAIN_HOME/bin directory and run the command ./startWebLogic.sh.

Figure 3-1 Starting the Administration Server through a terminal
3-2. Access to Oracle WebLogic Server Administration Console.

**Figure 3-2 Access to WebLogic Server 12cR2 Admin Console - Login page**

![Login page](image)

**Figure 3-3 Viewing WebLogic Server 12cR2 Admin Console - Home page**

![Home page](image)
Additional Comments

This document shows how to create a standard installation topology for Oracle WebLogic Server. You can extend this topology to make it highly available and secure so it is suitable for a production system.

Thank you!
SUSE ISV Engineering Team
Aug 4th, 2017

https://www.suse.com