# BEA WebLogic Platform™

## 8.1 Supported Configurations: Novell SUSE LINUX® Enterprise Server 8 on IBM zSeries/S390

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CHAPTER 1

# Novell SUSE LINUX Enterprise Server 8 on IBM zSeries/S390 with WebLogic Server 8.1 SP1

**Product Components Supported on this Configuration**

| | WebLogic Server | WebLogic Workshop | WebLogic Integration | WebLogic Portal |
|---|---|---|---|---|
| Run-time | ✓ | ✗ | ✗ | ✗ |
| Design/Dev Tools* | ✓ | ✗ | ✗ | ✗ |

* For design and development tools support, see the "Configuration Requirements" section below.

✓ Supported
✗ Not supported

This section provides the following information:

- Configuration Requirements
- Known Issues
- Download and Installation Instructions

## Related Information

- For information about supported database configurations, Web servers, and browsers, plus support for interoperability tools and WebLogic Platform product support information, see *WebLogic Platform 8.1 Supported Configurations.*
- For information about running Novell's SUSE LINUX Enterprise Server (SLES) 8 for IBM zSeries/S390, see:
  - `http://www.novell.com/linux/suse/index.html`
  - `http://www-1.ibm.com/servers/eserver/zseries/os/linux`

# Configuration Requirements

**Table 1-1 Requirements for WebLogic Server 8.1 SP1 on Novell SUSE LINUX Enterprise Server 8 on IBM zSeries/S390**

| | | |
|---|---|---|
| **Operating System Version and Patches** | Novell SUSE LINUX Enterprise Server (SLES) 8 for IBM zSeries/S390 31-bit with Kernel 2.4.19 or later, with SLES 8 SP2 | |
| **Chip Architecture and Minimum Processor Speed** | IBM S/390 G5 or later models | |
| **SDK** | IBM JDK 1.4.1 SR1 Java™ 2 Runtime Environment, Standard Edition (build 1.4.1) Classic VM (build 1.4.1, J2RE 1.4.1 IBM build cx3901411-20030930 (JIT enabled: jitc)) | |
| **Design and Development Tools** | Supports WebLogic Server development tools. | |
| **RAM** | 512 MB required; 1 GB recommended | |
| **Performance Pack** | Included | `lib/linux/s390/libmuxer.so` |
| **Node Manager** | Included | Native |
| **BEA jDrivers for Oracle** | None | |

# Known Issues

- The `setuid` function does not work with this SDK due to the way the current Linux thread model works. When you use ports lower than 1024, you cannot switch from root to a non-privileged user ID with the `setuid` function.
- The IIOP thin client is not supported due to dependencies on the JVM. Only thin-client applications are affected by this issue. To work around this limitation, use two configurations:

- Run WebLogic Server on SLES 8 for IBM zSeries/S390.
- Run your thin client on a different operating system configuration.

For more information about known issues with any components of this release, see the appropriate *Release Notes* document. For a complete list of *Release Notes* supporting WebLogic Platform 8.1, see:

`http://e-docs.bea.com/platform/docs70/interm/relnotes.html`

# Download and Installation Instructions

This section provides instructions for the following tasks:

- Downloading and Installing the IBM Developer Kit for 31-bit zSeries (S/390)
- Downloading the WebLogic Server 8.1 SP1 Installer
- Installing WebLogic Server 8.1 SP1

## Downloading and Installing the IBM Developer Kit for 31-bit zSeries (S/390)

Before you can install and run WebLogic Server 8.1 SP1 on your SuSE Linux ES 8 configuration, you must obtain an IBM Developer Kit for 31-bit zSeries (S/390) from IBM. To download this kit, complete the following procedure:

1. Go to the following IBM download registration site:

   `https://www6.software.ibm.com/dl/lxdk/lxdk-p`

2. Select “IBM SDK for 31-bit zSeries (S/390)...1.4.1 SR1.”
3. Register and accept the license agreement.

   The IBM Developer Kit for Linux, Java 2 Technology Edition for 31-bit zSeries (S/390) download page is displayed.

4. Follow the instructions displayed to download and install the SDK.
5. Set the `JAVA_HOME` environment variable to the directory in which IBM SDK 1.4.1 SR1 is installed, and export `JAVA_HOME`. For example:

   ```
   export JAVA_HOME=/opt/IBMJava2-s390-141
   ```

6. Make sure that your `PATH` variable includes `$JAVA_HOME/bin`. For example:

   ```
   export PATH=$JAVA_HOME/bin;$PATH:.
   ```

## Downloading the WebLogic Server 8.1 SP1 Installer

1. Go to the BEA download site:

   http://commerce.bea.com/index.jsp

1. Find your WebLogic Server release and Service Pack on the download page.
2. Select **SuSE Linux for IBM zSeries/S390.**
3. Download the WebLogic Server installer: `pj_server811_generic.jar`.
4. Download the supplemental JAR file called `zLinux811_supplemental.zip`.

## Installing WebLogic Server 8.1 SP1

1. Install WebLogic Server 8.1 SP1 by completing the console-mode installation procedure for `.jar` files available in *Installing WebLogic Platform* at http://e-docs.bea.com/platform/docs81/install/console.html:

   ```
   $ java -jar pj_server811_generic.jar -mode=console
   ```

2. Copy the `zLinux811_supplemental.zip` file to `$WL_HOME/server/lib`.
3. Change to the directory `$WL_HOME/server/lib`

   ```
   $ cd $WL_HOME/server/lib
   ```

4. Extract the `zLinux811_supplemental.jar` file and `zLinux811_libraries.jar` from the `zLinux811_supplemental.zip` to `$WL_HOME/server/lib`.

   ```
   $ jar -xvf zLinux811_supplemental.zip
   ```

5. Remove old plug-in objects from the `$WL_HOME/server/lib/linux/s390` library:

   ```
   $ rm linux/s390/*
   ```

6. Extract the `zLinux811_libraries.jar` file to `$WL_HOME/server/lib`:

   ```
   $ jar -xvf zLinux811_libraries.jar
   ```

7. Open the `$WL_HOME/common/bin/commEnv.sh` script in a text editor, and prepend the `zLinux811_supplemental.jar` to the classpath by doing the following:

   a. Find the following text:

   ```
   WEBLOGIC_CLASSPATH="${JAVA_HOME}/lib/tools.jar${CLASSPATHSEP} \
   ${WL_HOME}/server/lib/weblogic_sp.jar${CLASSPATHSEP} \
   ```

```
${WL_HOME}/server/lib/weblogic.jar${CLASSPATHSEP} \
${WL_HOME}/server/lib/ojdbc14.jar"
```

b. Replace it with:

```
WEBLOGIC_CLASSPATH="${JAVA_HOME}/lib/tools.jar \
${WL_HOME}/server/lib/zLinux811_supplemental.jar ${CLASSPATHSEP} \
${WL_HOME}/server/lib/weblogic_sp.jar${CLASSPATHSEP} \
${WL_HOME}/server/lib/weblogic.jar${CLASSPATHSEP} \
${WL_HOME}/server/lib/ojdbc14.jar"
```