



BEA WebLogic Platform™

**8.1 Supported
Configurations: Novell
SUSE LINUX® Enterprise
Server 9 on IBM zSeries**

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Novell SUSE LINUX Enterprise Server 9 on IBM zSeries with WebLogic Server 8.1 SP4

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) 9 for IBM zSeries, 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 SP4 on Novell SUSE LINUX Enterprise Server 9 on IBM zSeries

Operating System Version and Patches	Novell SUSE LINUX Enterprise Server (SLES) 9 for IBM zSeries with Kernel 2.6.5-7.97-s390x #1 SMP and later SUSE service packs and errata	
Chip Architecture and Minimum Processor Speed	IBM zSeries	
SDK	IBM SDK 1.4.2_Sr1a	This SDK must be downloaded from the IBM Web site. For instructions, see “Downloading and Installing the IBM Developer Kit for 31-bit zSeries (S/390)” on page 1-4.
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

This section provides workarounds for the following limitations:

- [SDK Tool Exception with UTF-8 Encoding](#)
- [WebLogic Server Stops Responding](#)
- [Limitations on Use of setuid](#)
- [IIOP Thin Client Is Not Supported](#)

SDK Tool Exception with UTF-8 Encoding

When UTF-8 encoding is used, some SDK tools throw a `sun.io.MalformedInputException`.

To avoid this exception, remove the UTF-8 suffix from all locale-specific environment variables. For example, if the default locale setting for your system is `en_US.UTF-8`, then complete the following steps:

1. In a text editor, open the following script:

```
$WL_HOME/common/bin/commEnv.sh
```

2. At the beginning of the script, set the `LANG` variable as follows:

```
export LANG="en_US.ISO8859_1"
```

For more information, see:

`$JAVA_HOME/docs/sdk/sdkguide.lnx.htm`

`JAVA_HOME` is the directory in which the SDK is installed on your machine.

WebLogic Server Stops Responding

If WebLogic Server stops responding after working properly for some time, there may be a problem with running IBM SDK 1.4.2_Sr1a on SUSE LINUX Enterprise Server 9. This disruption may be caused by an SDK problem related to the `return()` function from the `finally` block.

To avoid this situation, complete the following procedure:

1. In a text editor, open the `$WL_HOME/common/bin/commEnv.sh` script.
2. At the beginning of the script, check whether the `JITC_COMPILEOPT` environment variable is set as follows:

```
JITC_COMPILEOPT=NQCOPYPROPA{weblogic/socket/MuxableSocketDiscriminator}
{isMessageComplete}
```

3. If it is not already set as shown here, set `JITC_COMPILEOPT` now:

```
export
JITC_COMPILEOPT=NQCOPYPROPA{weblogic/socket/MuxableSocketDiscriminator}
{isMessageComplete}
```

4. Restart WebLogic Server.

Limitations on Use of setuid

The `setuid` function does not work with the IBM SDK, due to the way the current Linux thread model works. When you use ports lower than 1024, you cannot use the `setuid` function to switch from the root ID to a non-privileged user ID.

IIOP Thin Client Is Not Supported

The IIOP thin client is not supported due to dependencies on the SDK. Only thin-client applications are affected by this issue.

To work around this limitation, run:

- WebLogic Server on Novell SUSE LINUX Enterprise Server 9 on IBM zSeries
- Your thin client on a different operating system configuration

Note: `wlkeytool` is not supported for Novell SUSE LINUX Enterprise Server 9 on IBM zSeries.

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/docs81/interm/relnotes.html>

Download and Installation Instructions

This section provides instructions for the following procedures:

- [Downloading and Installing the IBM Developer Kit for 31-bit zSeries \(S/390\)](#)
- [Downloading the WebLogic Server 8.1 SP4 Installer](#)
- [Installing WebLogic Server 8.1 SP4](#)

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

Before you can install and run WebLogic Server 8.1 SP4 on your Novell SUSE LINUX Enterprise Server 9 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 site:

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

2. Select “IBM SDK for 31-bit zSeries (S/390), Version 142 SR1a.”
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 1.4.2 SR1a is installed, and export `JAVA_HOME`. For example:

```
export JAVA_HOME=/opt/IBMJava2-s390-142Sr1a
```

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 SP4 Installer

1. Go to the BEA downloads site:

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

2. Find your WebLogic Server release and Service Pack on the downloads page.
3. Select “SUSE LINUX 9.0 ES for IBM zSeries.”
4. Download the WebLogic Server installer: `pj_server814_generic.jar`.
5. Download the supplemental JAR file: `wls81sp4_zlinux_supp.jar`.

Installing WebLogic Server 8.1 SP4

1. Set the `WL_HOME` environment variable to the pathname for the `weblogic81` directory in your WebLogic Server installation directory. For example:

```
export WL_HOME=/home/bea/weblogic81
```

2. Install WebLogic Server 8.1 SP4 by running the following command:

```
$ java -Djava.io.tmpdir=temp_dir -Dos.name=linuxs390 -jar  
pj_server814_generic.jar -mode=console
```

Note: The `-Djava.io.tmpdir` argument is optional. BEA recommends that you include this argument when the amount of space available in `/tmp` is insufficient.

For a detailed procedure for installing WebLogic Server with `.jar` files in console-mode, see *Installing WebLogic Platform*:

<http://e-docs.bea.com/platform/docs81/install/console.html>

Copy the `wls81sp4_zlinux_supp.jar` file to `$WL_HOME/server/lib`.

3. Go to the `$WL_HOME/server/lib` directory:

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

4. Remove old native objects from the `$WL_HOME/server/lib/linux/s390` library:

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

5. Extract the contents of the `wls81sp4_zlinux_supp.jar` file to `$WL_HOME/server/lib`:

```
$ jar -xvf wls81sp4_zlinux_supp.jar
```

Change the permissions on the files:

```
$ chmod -R 755 $WL_HOME/server/lib/linux/s390/*
```

6. In a text editor, open the `$WL_HOME/common/bin/commEnv.sh` script and make the following changes:

- Add two lines to the beginning of the script:

```
export LANG="en_US"
export
JITC_COMPILEOPT=NQCOPYPROPA{weblogic/socket/MuxableSocketDiscriminat
or}{isMessageComplete}
```

For more information, see [“Known Issues” on page 1-2](#).

- In the LINUX/Linux case, set the `arch` variable to `s390` (`arch=s390`), as shown in the following example:

```
LINUX|Linux)
arch=`uname -m`
if [ "${arch}" = "x86_64" ]; then
arch=i686
fi
arch="s390"
```