

Visual Step By Step Instructions for Upgrading a Single Instance BigFix Linux Server

This example shows Linux server upgrade steps from BigFix 9.2.7.63 to 9.5.0.311. These steps also apply for any other older version to newer version upgrade (with minor visual differences).

Getting Ready:

- Ensure you have a local master console operator account to which you can login to the console.
- Ensure you can login to the BigFix server machine as root.
- Ensure you can switch user (su) to the DB2 userid that manages the databases (i.e. db2inst1).
- Ensure databases are backed up. The BigFix platform on Linux & DB2 uses two databases: BFENT and BESREPOR. If the databases are installed locally on the BigFix server, you'll see something similar to the information below if you run the DB2 LIST DATABASE DIRECTORY command (commands are in **bold**):

```
su - db2inst1  
db2 list database directory
```

```
System Database Directory
```

```
Number of entries in the directory = 2
```

```
Database 1 entry:
```

```
Database alias           = BESREPOR  
Database name            = BESREPOR  
Local database directory = /home/db2inst1  
Database release level   = 10.00  
Comment                  =  
Directory entry type     = Indirect  
Catalog database partition number = 0  
Alternate server hostname =  
Alternate server port number =
```

```
Database 2 entry:
```

```
Database alias           = BFENT  
Database name            = BFENT  
Local database directory = /home/db2inst1  
Database release level   = 10.00  
Comment                  =  
Directory entry type     = Indirect  
Catalog database partition number = 0  
Alternate server hostname =  
Alternate server port number =
```

- If the databases are on a remote machine and you are having trouble determining which database machine the BigFix application server is connecting to, you can issue the commands

“db2 list database directory” to see the database connection information as above, and “db2 list node directory” to see the server connection details on which the databases are hosted.

- Be aware that at the time of this writing, there was an open APAR regarding the BigFix upgrade in certain situations where a remote DB2 database is being used. See “[IV83679: UPGRADE TO 9.5 CAN FAIL BECAUSE INCONSISTENT DATA IN THE DB](#)”.
- Ensure that you have enough free space for the BigFix database. The free space projection involves a number of factors: the row counts of specific tables, the density of the data pages storing the tables and indexes, and specific database options for log management and table compression. The basic rule of thumb for the 9.5 upgrade is to ensure that you can accommodate a 100% growth in the size of the database (twice its current size). The additional space is required to manage the growth of tables for UTF-8 transcoding, including the allocation of temporary space for the movement of data within the BigFix databases. You can determine the database size through the DB2 get_dbsize_info procedure as follows (commands are in **bold**):

```
su - db2inst1  
db2 connect to bfent
```

```
Database Connection Information
```

```
Database server          = DB2/LINUX8664 10.5.3  
SQL authorization ID    = DB2INST1  
Local database alias    = BFENT
```

```
db2 "CALL GET_DBSIZE_INFO(?, ?, ?, -1)"
```

```
Value of output parameters
```

```
-----
```

```
Parameter Name   : SNAPSHOTTIMESTAMP  
Parameter Value  : 2016-04-15-16.27.14.167631
```

```
Parameter Name   : DATABASESIZE  
Parameter Value  : 1308729344
```

```
Parameter Name   : DATABASECAPACITY  
Parameter Value  : 27211042816
```

```
Return Status = 0
```

```
db2 connect reset
```

```
DB20000I The SQL command completed successfully.
```

In the above example, the database size is 1.3GB, so a 100% increase would require another 1.3GB free. There is currently 27GB free (the database capacity number), so this server has the space for the upgrade.

- Ensure your license.crt and license.pvk are backed up.

- Ensure you know the password of the license.pvk file. You can verify you know the password by issuing the following command at a Linux command prompt:

```
/opt/BESServer/bin/BESAdmin.sh -securitysettings  
-sitePvkLocation=/iemilmt/license.pvk
```

The command should prompt as follows:

```
Please enter the sitePvkPassword:
```

... and then after entering the site PVK password, it will display something similar to the following ...

```
Enhanced security is currently DISABLED  
SHA-256 downloads are currently OPTIONAL
```

- Ensure your current deployment is generally functional. A quick test performed by taking a deployment wide blank actionsite action via a master console operator should confirm basic functionality. See <http://www-01.ibm.com/support/docview.wss?uid=swg21506100>.

Upgrade The Server:

Download the Linux installation binaries from this site: <http://support.bigfix.com/bes/release/> and extract the compressed file to a folder.

On the BigFix server computer, from within the folder to which the installation binaries were extracted, run the BigFix server upgrade script:

```
./install.sh -upgrade -opt BES_LICENSE_PVK=<path+license.pvk> -  
opt BES_LICENSE_PVK_PWD=<password>
```

where:

```
-opt BES_LICENSE_PVK=<path+license.pvk>
```

Specifies the private key file (filename.pvk). This private key file and its password are required to update the product license and perform the required SHA-256 signature updates in the BigFix database.

Note: The notation <path+license.pvk> used in the command syntax stands for path_to_license_file/license.pvk.

```
-opt BES_LICENSE_PVK_PWD=<password>
```

Specifies the password associated to the private key file (filename.pvk).

The install.sh server script upgrades all the components it detects on the local server.

Here is the output from the command, which can take a while to complete depending on the size of your environment:

```
[root@myhost ServerInstaller]# ./install.sh -upgrade -opt
BES_LICENSE_PVK=/path/to/license.pvk -opt BES_LICENSE_PVK_PWD=pvkPassword
```

```
Welcome to the upgrade of IBM BigFix version 9.5.0.311
```

```
Info: Stopping server services ...
Info: The rpm './repos/BESRootServer-9.5.0.311-rhel.x86_64.rpm' was
installed successfully.
Info: Configuring the database for the server component, please wait ...
```

Note: Be aware that the database upgrade could take quite a while depending on the size and the amount of data in the database.

```
Info: The database for the server component was configured successfully.
Info: Stopping the client service ...
Info: The rpm './repos/BESAgent-9.5.0.311-rhe5.x86_64.rpm' was installed
successfully.
Info: Stopping WebReports service ...
Info: The rpm './repos/BESWebReportsServer-9.5.0.311-rhel.x86_64.rpm' was
installed successfully.
Info: Configuring the database for the WebReports component, please wait
...
Info: The database for the WebReports component was configured
successfully.
Info: The service 'BESRootServer' started successfully.
Info: The service 'BESFillDB' started successfully.
Info: The service 'BESGatherDB' started successfully.
Info: The service 'BESClient' started successfully.
Info: The service 'BESWebReportsServer' started successfully.
The 'IBM BigFix' upgrade completed successfully.
```

Next, run the Administration Tool to distribute the updated license:

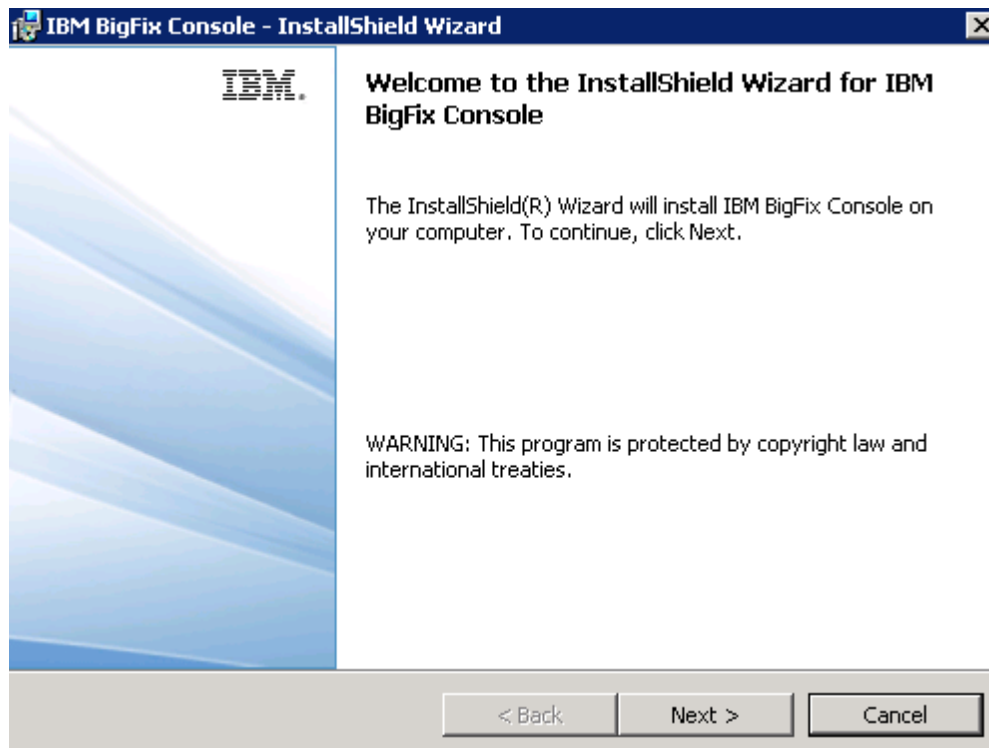
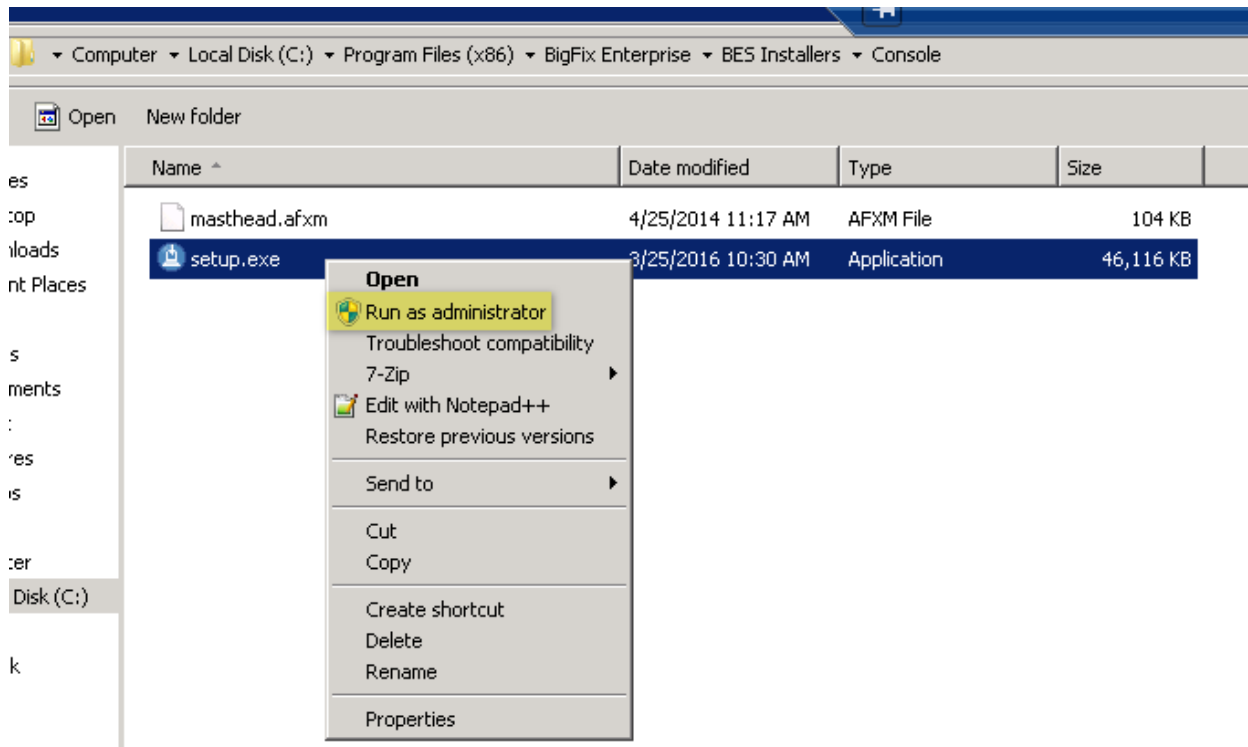
```
/opt/BESServer/bin/BESAdmin.sh -syncmastheadandlicense
-sitePvkLocation=<path+license.pvk>
-sitePvkPassword=<password>
```

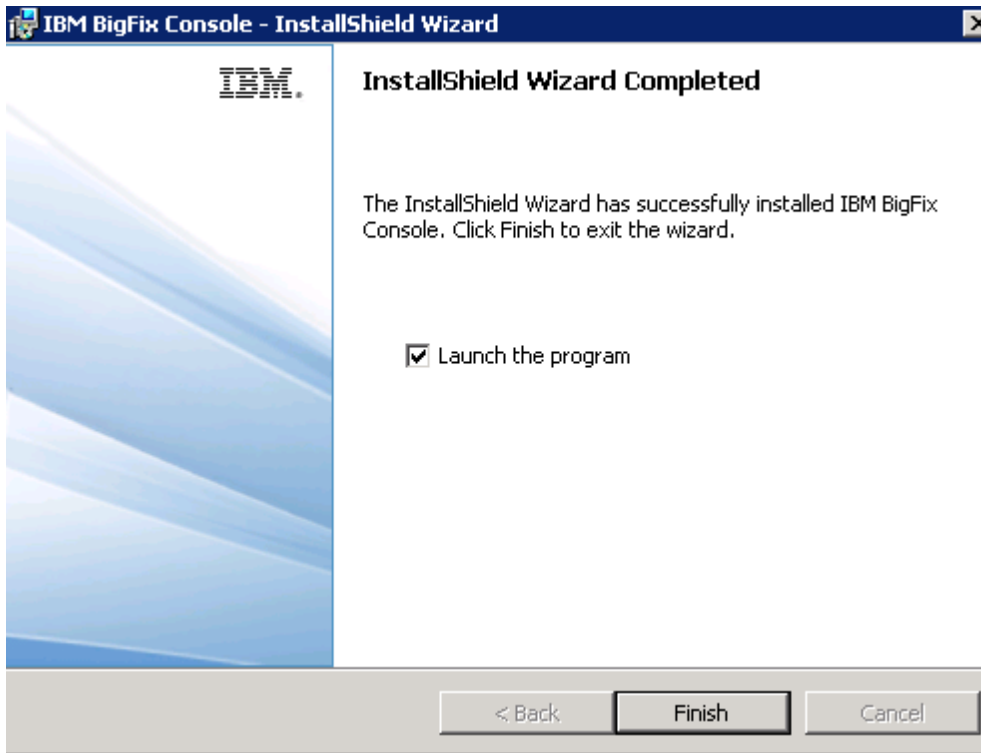
In my case, I was simply told that “The masthead and license are already up to date.”

For troubleshooting information see `/var/log/BESInstall.log` and `/var/log/BESAdminDebugOut.txt` files.

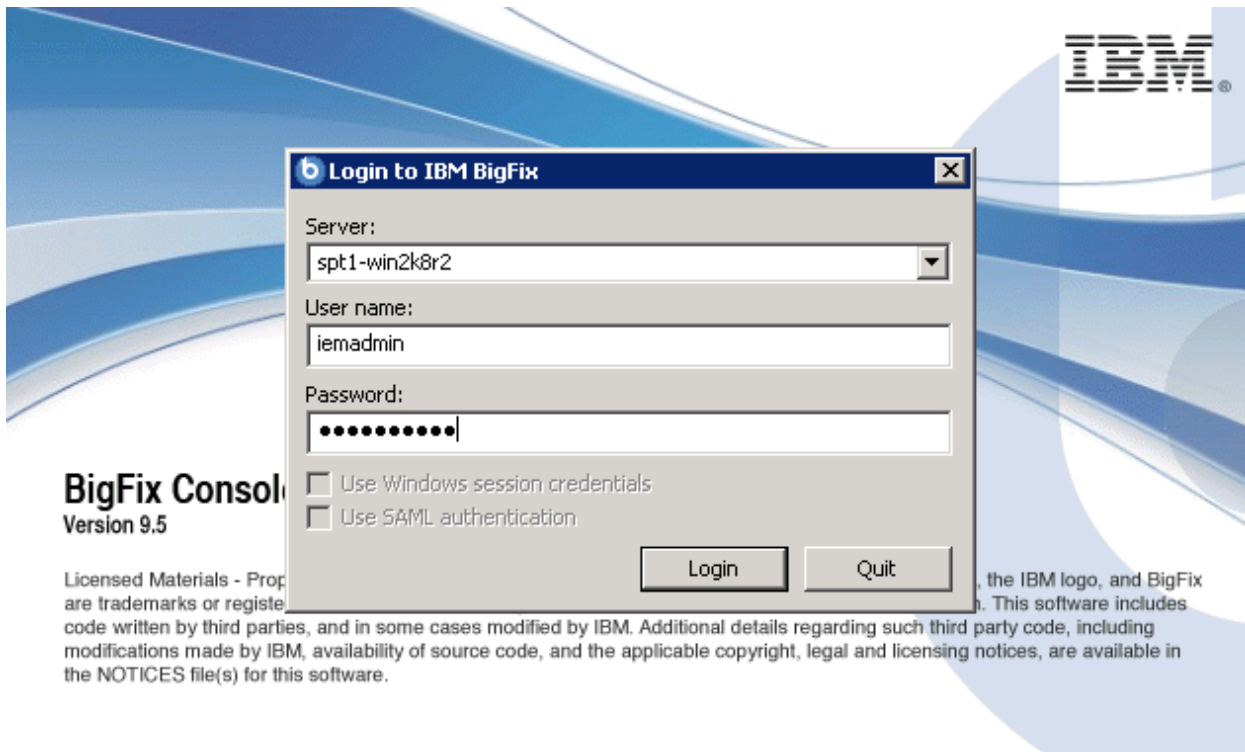
Upgrade The Console:

On the Windows machine that runs the console, download the Console installation executable from this site: <http://support.bigfix.com/bes/release/>. Then simply run the executable; it won't ask for any installation parameters and will simply upgrade the console.





Login to the console:



Upgrade The Remaining Consoles, Then The Relays, Then The Clients:

Next, **upgrade the rest of the consoles** in the deployment by taking action on Task # 2391 - “IBM BigFix - Updated Platform Server Components version 9.5.0 Now Available!” in the BES Support site and target the machines that have consoles installed on them.

Next, **upgrade the relays** in the deployment by taking action Task # 2415 - “Updated Windows Relay - IBM BigFix version 9.5.0 Now Available!” for Windows relays and Task's 2394, 2396, 2401, 2404, and 2406 if you are updating relay's on AIX, CentOS, Red Hat, Solaris, and SuSE respectively in the BES Support site.

Lastly, **upgrade the clients** in your deployment by take action on Task # 2411 - “Updated Windows Client - IBM BigFix version 9.5.0 Now Available!” for Windows clients and Task's 2393, 2395, 2397, 2400, 2403, 2405, 2407, and 2420 for AIX, CentOS, Debian, Red Hat Solaris, SuSE, Ubuntu, and Mac OS X clients respectively.

