Migrating Platform LSF Version 7 to Platform LSF Version 8 on Windows

Platform LSF
Version 8.0
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Migrate Your Windows Cluster to LSF 8

This document describes how to migrate a Windows cluster to LSF 8 from LSF 7 or LSF 7 Updates 1-6. If you have LSF 6.x, you must first migrate your Windows cluster to Platform LSF version 7 (information is provided in a separate document).

What is migration?

A direct upgrade of a cluster to LSF 8 is not supported. Migration lets you transfer both workload and configuration from the original cluster after you have installed a new LSF 8 cluster.

It is important to follow the procedure exactly, or the new cluster may not work properly afterwards. Do not remove or rename any files or directories from the original cluster unless a procedure tells you to do so.

How to migrate your cluster

The original (pre-LSF 8) cluster is working properly.

Complete the following steps to migrate your cluster.

1. Back up existing configuration files and work directories
2. Uninstall the existing cluster
3. Install LSF 8
4. Copy and edit LSF configuration and work files
5. Copy EGO configuration and work files
6. Start the new cluster

Back up existing configuration files and work directories

You must back up files and directories. The shared directory is indicated by share_dir in the following procedure.

1. Does your existing cluster use the share_dir directory to store configuration files and work directories?
   • If no, go to step 2.
   • If yes, back up directories in the share_dir directory.

   Your existing directory structure should be as follows:
   - LSF_ENVDIR (for LSF 7 Update 2 through 6): share_dir\conf
   - LSF_ENVDIR (other): share_dir\lsf\conf
   - LSB_CONFDIR (for LSF 7 Update 2 through 6): share_dir\lsbatch\conf
   - LSB_CONFDIR (other): share_dir\lsf\conf\lsbatch
   - LSB_SHAREDIR (for LSF 7 Update 2 through 6): share_dir\work
   - LSB_SHAREDIR (other): share_dir\lsf\work
EGO_CONFDIR (for LSF 7 Update 2 through 6): share_dir\conf\ego\cluster_name\kernel

EGO_CONFDIR (other): share_dir\kernel\conf

EGO_WORKDIR (for LSF 7 Update 2 through 6): share_dir\work\cluster_name\ego

EGO_WORKDIR (other): share_dir\kernel\work

share_dir\gui\conf

2. If your existing cluster configuration files are not in the share_dir directory, back up directories from your existing cluster.

If you have Update 2, back up whole conf and work directories:

- C:\LSF_7.0\conf
- C:\LSF_7.0\work

If you have another version of LSF, back up the following:

a) LSF_ENVDIR
   For example, C:\LSF_7.0\conf\ 

b) LSB_CONFDIR
   For example, C:\LSF_7.0\conf\lsbatch

c) LSB_SHAREDIR
   For example, C:\LSF_7.0\work

d) EGO_CONFDIR
   For example, C:\LSF_7.0\ego\kernel\conf

e) EGO_WORKDIR
   For example, C:\LSF_7.0\ego\kernel\work

f) LSF_TOP\ego\gui\conf
   For example, C:\LSF_7.0\ego\gui\conf

Uninstall the existing cluster

If your existing cluster does not use the share_dir directory, you must back up existing configuration files and work directories before you uninstall the cluster.

1. Uninstall the current cluster (LSF 7 or LSF 7 Update 1-6).
2. Reboot the master hosts.
3. Remove the old installation directories within LSF_TOP.

Install Platform LSF 8

1. Download and install LSF 8 using the same cluster name and cluster administrator that you have for your existing cluster.
Copy and edit Platform LSF configuration and work files

Note:

LSF 7 Updates 3 and higher and LSF 8 no longer use the ego. cluster and ego. shared files. Therefore, if you are updating from LSF Update 3 or higher to LSF 8, you do not need to do the following for the ego. cluster and ego. shared files.

In this procedure, _old refers to configuration file paths for the existing cluster, and _new refers to configuration file paths for the new cluster.

1. If upgrading from anything older than Update 3, migrate the old ego. cluster file to the new lsf. cluster file.
   a) Open the old ego. cluster file from EGO_CONFDIR\_old\_
   b) Open the new lsf. cluster file from LSF_ENVDIR\_new\_
   c) Migrate the following sections from the old ego. cluster file to the new lsf. cluster file:
      • Hosts section
      • Parameters section
      • Resource Map

2. Migrate values from the old lsf.conf file to the new lsf.conf file:
   a) Open the old lsf.conf file from LSF_ENVDIR\_old\_
   b) Open the new lsf.conf file from LSF_ENVDIR\_new\_
   c) Migrate the values from the old file to the new one.

   Remember:
   The new lsf.conf file contains the correct configuration path values for the LSF 8 directory structure changes.

3. If upgrading from anything older than Update 3, copy the old ego.shared file as lsf.shared to the new cluster.

```
cp -f EGO_CONFDIR\old\ego.shared LSF_ENVDIR\new\lsf.shared
```

4. Copy the old passwd.lsfuser file to the new cluster.

```
cp -f LSF_ENVDIR\old\passwd.lsfuser LSF_ENVDIR\new\passwd.lsfuser
```

5. Copy all old LSF batch configuration files to the new cluster.

```
cp -f LSB_CONFDIR\old\cluster_name\configdir\* LSB_CONFDIR\new\cluster_name\configdir
```

6. Copy all old LSF batch work files to the new cluster.

```
cp -rf LSB_SHAREDIR\old\cluster_name\* LSB_SHAREDIR\new\cluster_name\`
```

Copy EGO configuration and work files

1. Does your existing cluster define an EGO consumer tree, an EGO resource group or EGO users?
   • If no, go to step 2.
   • If yes, copy all old EGO XML configuration files to the new cluster, and then go to step 2.
2. Copy the old EGO password file to the new cluster:
   
   ```
   cp -f EGO_CONFDIR_old/passwd.ego EGO_CONFDIR_new/passwd.ego
   ```

3. Copy the old EGO work directory to the new cluster:
   
   ```
   cp -rf EGO_WORKDIR_old/* EGO_WORKDIR_new/
   ```

### Start the new cluster

1. Start the new LSF 8 cluster.
   
   ```
   lsfstartup
   ```

2. Activate all queues to start jobs remaining from the original cluster.
   
   To activate all LSF queues, run:
   
   ```
   badmin qact all
   ```

3. Submit all new work to the new cluster.