

IBM Spectrum LSF for SAS
Version 10 Release 1

Migrating on Windows



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Chapter 1. Migrate your IBM Spectrum LSF cluster to version 10.1 Fix Pack 6 on Windows LSF

Migrate a Windows cluster by transferring both workload and configuration from the original cluster after you installed a new LSF

This document describes how to migrate a Windows cluster to LSF 10.1 Fix Pack 6 from LSF 7, LSF 7 Updates 1-6, LSF 8.0, LSF 8.0.1, LSF 8.3, LSF 9.1, and LSF 10.1.

If you have LSF 6.x, you must first migrate your Windows cluster to LSF version 7.

What is migration?

A direct upgrade of a Windows cluster to LSF 10.1 Fix Pack 6 is not supported. Migrate the Windows cluster to transfer both workload and configuration from the original cluster after you install a new LSF 10.1 Fix Pack 6 cluster.

It is important to follow this procedure exactly, or the new cluster might not work properly afterward. Do not remove or rename any files or directories from the original cluster unless otherwise mentioned.

Migrating your cluster

Before you begin

The original cluster (earlier than LSF 10.1 Fix Pack 6) is working properly.

About this task

Complete the following steps to migrate your cluster.

Procedure

1. Back up existing configuration files and work directories
2. Uninstall the existing cluster
3. Install LSF 10.1 Fix Pack 6
4. Copy and edit LSF configuration and work files
5. Copy enterprise grid orchestrator (EGO) configuration and work files
6. Start the new cluster

Back up existing configuration files and work directories

About this task

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

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.

For example, your existing directories can have the following structure:

LSF_ENVDIR (for LSF 7 Update 2 - 6, LSF 8.0, LSF 8.0.1, LSF 8.3, LSF 9.1, and LSF 10.1):
share_dir\conf

LSF_ENVDIR (other versions of LSF): *share_dir\lsf\conf*

LSB_CONFDIR (for LSF 7 Update 2 - 6, LSF 8.0, LSF 8.0.1, LSF 8.3, LSF 9.1, and LSF 10.1):
share_dir\conf\lsbatch

LSB_CONFDIR (other versions of LSF): *share_dir\lsf\conf\lsbatch*

LSB_SHAREDIR (for LSF 7 Update 2 - 6, LSF 8.0, LSF 8.0.1, LSF 8.3, LSF 9.1, and LSF 10.1):
share_dir\work

LSB_SHAREDIR (other versions of LSF): *share_dir\lsf\work*

EGO_CONFDIR (for LSF 7 Update 2 - 6, LSF 8.0, LSF 8.0.1, LSF 8.3, LSF 9.1, and LSF 10.1):
share_dir\conf\ego\cluster_name\kernel

EGO_CONFDIR (other versions of LSF): *share_dir\kernel\conf*

EGO_WORKDIR (for LSF 7 Update 2 - 6, LSF 8.0, LSF 8.0.1, LSF 8.3, LSF 9.1, and LSF 10.1):
share_dir\work\cluster_name\ego

EGO_WORKDIR (other versions of LSF): *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 LSF 7 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 7, back up the following data:

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

Uninstalling the existing cluster

Before you begin

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.

Procedure

1. Uninstall the current cluster (LSF 7 or LSF 7 Update 1 - 6, LSF 8.0, LSF 8.0.1, LSF 8.3, LSF 9.1, and LSF 10.1).

2. Restart the master hosts.
3. Remove the old installation directories within **LSF_TOP**.

Installing LSF 10.1 Fix Pack 6

Procedure

Download and install LSF 10.1 Fix Pack 6 with the same cluster name and cluster administrator that you have for your existing cluster.

Copying and editing LSF configuration and work files

About this task

Note:

LSF 7 Updates 3 and higher and LSF 10.1 no longer use the `ego.cluster` and `ego.shared` files. Therefore, if you are updating from LSF Update 3 or higher, you do not need to do the following steps 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.

Procedure

1. If you are upgrading from anything earlier than LSF 7 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 10.1 Fix Pack 6 directory structure changes.
3. If you are upgrading from anything older than Update 3, copy the old `ego.shared` file as `lsf.shared` to the new cluster.

Copy `EGO_CONFDIR_old\ego.shared` to `LSF_ENVDIR_new\lsf.shared`
4. Copy the old `passwd.lsfuser` file to the new cluster.

Copy `LSF_ENVDIR_old\passwd.lsfuser` to `LSF_ENVDIR_new\passwd.lsfuser`
5. Copy all old LSF batch configuration files to the new cluster.

Copy `LSB_CONFDIR_old\cluster_name\configdir*` to `LSB_CONFDIR_new\cluster_name\configdir\`
6. Copy all old LSF batch work files to the new cluster.

Copy `LSB_SHARED_DIR_old\cluster_name*` to `LSB_SHARED_DIR_new\cluster_name\`

Copying EGO configuration and work files

Procedure

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.
Copy EGO_CONFDIR_oldd*.xml to EGO_CONFDIR_new\
Copy EGO_CONFDIR_oldd\passwd.ego to EGO_CONFDIR_new\passwd.ego
2. Copy the old EGO password file to the new cluster:
Copy EGO_CONFDIR_oldd\passwd.ego to EGO_CONFDIR_new\passwd.ego
3. Copy the old EGO work directory to the new cluster:
Copy EGO_WORKDIR_oldd* to EGO_WORKDIR_new\

Starting the new cluster

Procedure

1. Start the new LSF 10.1 Fix Pack 6 cluster.
lsfstartup
2. Activate all queues to start jobs that are remaining from the original cluster.
To activate all LSF queues, run:
badmin qact all
3. Submit all new work to the new cluster.

