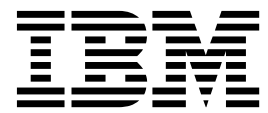IBM Spectrum LSF
Version 10 Release 1

Migrating on Windows

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Contents

Migrate your IBM Spectrum LSF cluster to version 10.1 on Windows LSF

Migrate a Windows cluster by transferring both workload and configuration from the original cluster after you installed a new LSF 10.1 cluster.

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

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 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 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

The original cluster (earlier than LSF 10.1) 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 10.1
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

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.

     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, and LSF 9.1): *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, and LSF 9.1): *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, and LSF 9.1): *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, and LSF 9.1): *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, and LSF 9.1): *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

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, LSF 8.0, LSF 8.0.1, and LSF 9.1).
2. Restart the master hosts.
3. Remove the old installation directories within **LSF_TOP**.

Installing LSF 10.1

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

Copying and editing LSF configuration and work files

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 to LSF 10.1, 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.

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 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_SHAREDIR_old\cluster_name\*` to `LSB_SHAREDIR_new\cluster_name\`

Copying 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.

     Copy `EGO_CONFDIR_old\*.xml` to `EGO_CONFDIR_new\`
2. Copy the old EGO password file to the new cluster:

   Copy `EGO_CONFDIR_old\passwd.ego` to `EGO_CONFDIR_new\passwd.ego`
3. Copy the old EGO work directory to the new cluster:

   Copy `EGO_WORKDIR_old\*` to `EGO_WORKDIR_new\`

Starting the new cluster

1. Start the new LSF 10.1 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.

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