Platform LSF
Version 9 Release 1.1

Migrating on Windows

IBM
Platform LSF
Version 9 Release 1.1

Migrating on Windows

IBM
## Contents

**Migrate Your Windows Cluster to LSF**

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.1.1</td>
<td>1</td>
</tr>
<tr>
<td>What is migration?</td>
<td>1</td>
</tr>
<tr>
<td>How to migrate your cluster</td>
<td>1</td>
</tr>
</tbody>
</table>

Start the new cluster: .................................. 3

### Notices

Start the new cluster: .................................. 3

### Trademarks

Notices: .................................................. 5

Trademarks: ............................................. 7
Migrate Your Windows Cluster to LSF 9.1.1

This document describes how to migrate a Windows cluster to LSF9.1.1 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 Platform LSF version 7.

What is migration?

A direct upgrade of a Windows cluster to LSF9.1.1 is not supported. Migration lets you transfer both workload and configuration from the original cluster after you have installed a new LSF9.1.1 cluster.

It is important to follow this 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-LSF9.1.1) 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 LSF9.1.1
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, LSF 8.0 LSF 8.0.1, LSF 8.3 and LSF 9.1): \share_dir\conf
- LSF_ENVDIR (other): \share_dir\lsf\conf
- LSB_CONFDIR (for LSF 7 Update 2 through 6, LSF 8.0 LSF 8.0.1, LSF 8.3 and LSF 9.1): \share_dir\conf\lsbatch
- LSB_CONFDIR (other): \share_dir\lsf\conf\lsbatch
- LSB.SharedDIR (for LSF 7 Update 2 through 6, LSF 8.0 LSF 8.0.1, LSF 8.3 and LSF 9.1): \share_dir\work\lsbatch
- LSB.SharedDIR (other): \share_dir\lsf\work\
**EGO_CONFDIR** (for LSF 7 Update 2 through 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): `share_dir\kernel\conf`

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

**EGO_WORKDIR** (other): `share_dir\kernel\work`

2. If your existing cluster configuration files are not in the `share_dir` directory, backup 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:
   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, LSF 8.0, LSF 8.0.1 and LSF 9.1).
2. Reboot the master hosts.
3. Remove the old installation directories within `LSF_TOP`.

**Install LSF9.1.1**

Download and install LSF9.1.1 using the same cluster name and cluster administrator that you have for your existing cluster.

**Copy and edit LSF configuration and work files**

**Note:**

LSF 7 Updates 3 and higher and LSF9.1.1 no longer use the `ego.cluster` and `ego.shared` files. Therefore, if you are updating from LSF Update 3 or higher to LSF9.1.1, 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 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 LSF9.1.1 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.
     cp -f EGO_CONFDIR_old\*.xml EGO_CONFDIR_new

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 LSF9.1.1 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.
Migrating Platform LSF Version 7 to Platform LSF Version 9.1.1 on Windows
Notices

This information was developed for products and services offered in the U.S.A.

IBM® may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not grant you any license to these patents. You can send license inquiries, in writing, to:

IBM Director of Licensing
IBM Corporation
North Castle Drive
Armonk, NY 10504-1785
U.S.A.

For license inquiries regarding double-byte character set (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:

Intellectual Property Licensing
Legal and Intellectual Property Law
IBM Japan Ltd.
19-21, Nihonbashi-Hakozakicho, Chuo-ku
Tokyo 103-8510, Japan

The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law:

INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION “AS IS” WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

Any references in this information to non-IBM Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web
sites. The materials at those Web sites are not part of the materials for this IBM product and use of those Web sites is at your own risk.

IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

IBM Corporation
Intellectual Property Law
Mail Station P300
2455 South Road,
Poughkeepsie, NY 12601-5400
USA

Such information may be available, subject to appropriate terms and conditions, including in some cases, payment of a fee.

The licensed program described in this document and all licensed material available for it are provided by IBM under terms of the IBM Customer Agreement, IBM International Program License Agreement or any equivalent agreement between us.

Any performance data contained herein was determined in a controlled environment. Therefore, the results obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurement may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

All statements regarding IBM’s future direction or intent are subject to change or withdrawal without notice, and represent goals and objectives only.

This information contains examples of data and reports used in daily business operations. To illustrate them as completely as possible, the examples include the names of individuals, companies, brands, and products. All of these names are fictitious and any similarity to the names and addresses used by an actual business enterprise is entirely coincidental.

COPYRIGHT LICENSE:

This information contains sample application programs in source language, which illustrates programming techniques on various operating platforms. You may copy, modify, and distribute these sample programs in any form without payment to IBM, for the purposes of developing, using, marketing or distributing application
programs conforming to the application programming interface for the operating platform for which the sample programs are written. These examples have not been thoroughly tested under all conditions. IBM, therefore, cannot guarantee or imply reliability, serviceability, or function of these programs. The sample programs are provided "AS IS", without warranty of any kind. IBM shall not be liable for any damages arising out of your use of the sample programs.

Each copy or any portion of these sample programs or any derivative work, must include a copyright notice as follows:

© (your company name) (year). Portions of this code are derived from IBM Corp. Sample Programs. © Copyright IBM Corp. _enter the year or years_.

If you are viewing this information softcopy, the photographs and color illustrations may not appear.

**Trademarks**

IBM, the IBM logo, and ibm.com® are trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the Web at "Copyright and trademark information" at [http://www.ibm.com/legal/copytrade.shtml](http://www.ibm.com/legal/copytrade.shtml).

Intel, Intel logo, Intel Inside, Intel Inside logo, Intel Centrino, Intel Centrino logo, Celeron, Intel Xeon, Intel SpeedStep, Itanium, and Pentium are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.

Java™ and all Java-based trademarks and logos are trademarks or registered trademarks of Oracle and/or its affiliates.

Linux is a trademark of Linus Torvalds in the United States, other countries, or both.

LSF®, Platform, and Platform Computing are trademarks or registered trademarks of International Business Machines Corp., registered in many jurisdictions worldwide.

Microsoft, Windows, Windows NT, and the Windows logo are trademarks of Microsoft Corporation in the United States, other countries, or both.

Other company, product, or service names may be trademarks or service marks of others.