Migrating to Platform™ LSF™ Version 7 Update 5 on UNIX and Linux

Release date: March 2009
Last modified: March 23, 2009
Comments to: doc@platform.com
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Migrate your LSF cluster to Update 5

LSF directory structure change

The installed directory structure changed in LSF Version 7 Update 2. The LSF directory structure differs from the directory structure of previous releases of LSF Version 7. The LSF directories have been consolidated to resemble the LSF 6.*x* directory structure, where configuration, work, and logging directories for EGO, Web GUI, and reporting components are located under the standard LSF directories `LSF_TOP/conf`, `LSF_TOP/work`, and `LSF_TOP/log` for easier administration and upgrade.

These directories can be located on their own file systems and have the following access permissions:

- `LSF_TOP/conf` is writable by the LSF administrator, master host, and master candidate hosts
- `LSF_TOP/log` is writable by all hosts in the cluster
- `LSF_TOP/work` is writable by the master host and master candidate hosts, and is accessible to slave hosts

See the chapters "Working with Your Cluster" and "Managing LSF on Platform EGO" in *Administering Platform LSF* for detailed information.

How to use this document

For Update 5 only, to update your existing LSF Version 7 or LSF Version 7 Update 1 cluster, you must follow the steps in this document to manually copy some of your existing configuration files to other directories. If you have the Platform Management Console installed, contact Platform Support for additional information.

NOTE: For LSF versions prior to Version 7, LSF Version 7 Update 2, LSF Version 7 Update 3, or LSF Version 7 Update 4 (with or without the Platform Management Console installed), you can upgrade your cluster by following the steps in *Upgrading Platform LSF on UNIX and Linux*.

Get ready to migrate

1. Get an LSF Version 7 license and create a license file (`license.dat`).

Download LSF distribution tar files

1. Log on to the LSF file server host as `root`.
2. FTP to `ftp.platform.com` and get the following files from the `/distrib/7.0/platform_lsf_update5/` directory on `ftp.platform.com`:
   - LSF installation script tar file `lsf7Update5_lsfinstall.tar.Z`
   - LSF distribution tar files for all host types you need

   Download and read the LSF Version 7 Release Notes for detailed steps for downloading LSF distribution tar files.

3 Put the distribution tar files in the same directory that contains the `lsf7Update5_lsfinstall.tar.Z` file.

4 Uncompress and extract `lsf7Update5_lsfinstall.tar.Z`:
```
# zcat lsf7Update5_lsfinstall.tar.Z | tar xvf -
```

IMPORTANT: DO NOT extract the distribution tar files.

5 Define the required installation parameters in `install.config`. You should specify the same values as those defined for your existing cluster.

- For `LSF_TOP`, specify a different directory than the one used for your existing cluster. This prevents your existing configuration files from being overwritten when you install LSF Version 7 Update 5.
- EGO is enabled by default in `install.config`. Your existing LSF Version 7 cluster uses EGO functionality for daemon control and reporting. To maintain the functionality of your existing cluster, do not change the default value of the parameter `ENABLE_EGO`.
- LSF Version 7 Update 5 does not use the parameter `EGO_TOP`.

Run lsfinstall

1 Change to `lsf7Update5_lsfinstall/`.

2 Read `lsf7Update5_lsfinstall/install.config` and decide which installation variables you need to set.

3 Edit `lsf7Update5_lsfinstall/install.config` to set the installation variables you need.

4 Follow the instructions in `lsf_unix_install.pdf` to run:
```
./lsfinstall -f install.config
```

IMPORTANT: You must run `lsfinstall` as `root`.

Copy and edit LSF configuration files

In the following procedure, the phrase *lsf_top_old* refers to the `LSF_TOP` directory for the original cluster, and the phrase *lsf_top_new* refers to the `LSF_TOP` directory for the newer cluster.

1 Inactivate all queues to make sure that no new jobs will be dispatched during the update:
```
badmin qinact all
```

2 Back up your existing `LSF_CONFDIR`, `LSB_CONFDIR`, and `LSB_SHAREDIR` according to the procedures at your site.

3 Shut down the older version of the LSF Version 7 cluster:
```
lsfshutdown
```

4 Migrate the LSF lsbatch files directory:
```
cp -rfp $LSB_CONFDIR_old/* $LSB_CONFDIR_new/
```

5 Migrate the LSF work directory:
```
cp -rfp lsf_top_old/work lsf_top_new
```

6 Does your existing cluster use default values for all parameters defined in `lsf.conf`?

- If *yes*, you do not have to edit `lsf.conf`. Go to step 7.
- If *no*, you must edit `lsf.conf` and change the values of the parameters to match those defined for your existing cluster. Go to step 6.

7 You can update `lsf.conf` in one of two ways:

- Copy the old `lsf.conf` file from *lsf_top_old*`/conf` to *lsf_top_new*`/conf` and add the parameters `LSF_ENABLE_EGO` and `EGO_WORKDIR`. For a description of `LSF_ENABLE_EGO`, see the *Platform LSF Configuration Reference*. For a description of `EGO_WORKDIR`, see the *EGO Reference*.
- Edit the new `lsf.conf` file in *lsf_top_new*`/conf` to match the values defined in your old `lsf.conf` file.

NOTE: All required LIM parameters are now defined *only* in `lsf.conf`. Corresponding LIM parameters no longer appear in `ego.conf`.

8 If you want to change any parameter values in the cluster file, edit the file `lsf.cluster.`*cluster_name*. LSF Version 7 Update 5 no longer uses `ego.cluster.`*cluster_name*.

Copy and edit EGO configuration files

In the following procedure, the phrase *ego_top* refers to the `EGO_TOP` directory for the existing cluster, the phrase *lsf_top_new* refers to the `LSF_TOP` directory for the new cluster, and the phrase *lsf_cluster_name* refers to the name of your cluster.

1 Migrate the user file:
```
cp -rfp ego_top/kernel/conf/user.xml
lsf_top_new/conf/ego/lsf_cluster_name/kernel/user.xml
```

2 Migrate the consumer trees file:
```
cp -rfp ego_top/kernel/conf/ConsumerTrees.xml
lsf_top_new/conf/ego/lsf_cluster_name/kernel/ConsumerTrees.xml
```

3 Migrate the resource groups file:
```
cp -rfp ego_top/kernel/conf/ResourceGroups.xml
lsf_top_new/conf/ego/lsf_cluster_name/kernel/ResourceGroups.xml
```

4 Migrate the EGO working files:
```
cp -rfp ego_top/kernel/work/vemkd
lsf_top_new/work/lsf_cluster_name/ego/

cp -rfp ego_top/kernel/work/data
lsf_top_new/work/lsf_cluster_name/ego/
```

5 If you have enabled the dynamic host feature for your cluster, migrate the host cache files:

```
cp -rfp ego_top/kernel/work/lim
lsf_top_new/work/lsf_cluster_name/ego
```

Start the cluster

1 Start the LSF 7 Update 5 cluster:

```
lsfstartup
```

If EGO is enabled for your cluster (default), the reporting and Platform Management Console services start automatically.

2 Check to see that the cluster is working properly.

Run hostsetup to set up LSF hosts

Run the LSF Version 7 Update 5 `hostsetup` command on each host to reset LSF runlevel changes (`rc`).

1 Follow the steps in `lsf7Update5_lsfinstall/lsf_getting_started.html` to set up your LSF hosts (`hostsetup`).

a Log on to each LSF server host as `root`. Start with the LSF master host.

b Run `hostsetup` on each LSF server host. For example:

```
cd /usr/share/lsf/7.0/install
./hostsetup --top="/usr/share/lsf/"
```

For complete `hostsetup` usage, enter `hostsetup -h`.

2 Set your LSF environment:

- For `csh` or `tcsh`:
  ```
  source LSF_TOP/conf/cshrc.lsf
  ```
- For `sh`, `ksh`, or `bash`:
  ```
  . LSF_TOP/conf/profile.lsf
  ```

3 Follow the steps in `lsf7Update5_lsfinstall/lsf_quick_admin.html` to update your license.

Learn About Platform LSF Version 7

Information about Platform LSF is available from the following sources:

- World Wide Web and FTP
- Platform LSF documentation
- Platform EGO documentation
- Platform training

World Wide Web and FTP

Information about Platform LSF Version 7 is available in the LSF area of the Platform FTP site (`ftp.platform.com/distrib/7.0/`).

The latest information about all supported releases of Platform LSF is available on the Platform Web site at `www.platform.com`.

If you have problems accessing the Platform web site or the Platform FTP site, send email to `support@platform.com`.

my.platform.com

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On the Platform LSF Family product page of `my.platform.com`, you can download software, patches, updates and documentation. See what's new in Platform LSF Version 7, check the system requirements for Platform LSF, or browse and search the latest documentation updates through the Platform LSF Knowledge Center.

Platform LSF documentation

If you have installed the Platform Management Console, access and search the Platform LSF documentation through the link to the Platform Knowledge Center.

Platform EGO documentation

If you have installed the Platform Management Console, access the Platform EGO documentation through the link to the Platform Knowledge Center.

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Find out more about Platform Training at `www.platform.com/Services/Training/`, or contact `Training@platform.com` for details.

Get Technical Support

Contact Platform

Contact Platform Computing or your LSF vendor for technical support. Use one of the following to contact Platform technical support:

Email

support@platform.com

World Wide Web

www.platform.com

Mail

Platform Support
Platform Computing Inc.
3760 14th Avenue
Markham, Ontario
Canada L3R 3T7

When contacting Platform, please include the full name of your company.

See the Platform Web site at www.platform.com/Company/Contact.Us.htm for other contact information.

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