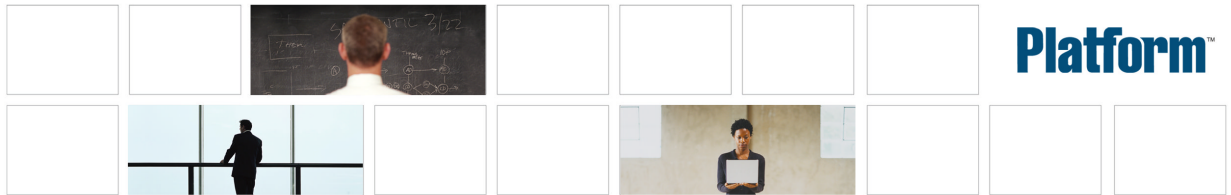

Release Notes for Platform LSF

Platform LSF
Version 7.0 Update 6
Release date: September 2009
Last modified: September 1, 2009



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Release Notes for Platform LSF

Release date: September 2009

Last modified: September 1, 2009

Comments to: doc@platform.com

Support: support@platform.com

Upgrade and Compatibility Notes

For additional information about Platform LSF Version 7 Update 6, visit the Platform Computing Web site:

<http://www.platform.com/Products/platform-lsf/features-benefits>

Master host selection

To achieve the highest degree of performance and scalability, we strongly recommend that you use a powerful master host.

There is no minimum CPU requirement. For the platforms LSF is supported on, any host with at least 1 GB of physical memory can run LSF as master host. Swap space is normally configured as twice the physical memory. LSF daemons use about 20 MB of memory when no jobs are running. Active jobs consume most of the memory LSF requires.

Cluster size	Active jobs	Recommended physical memory	Recommended CPU
Small (<100 hosts)	1,000	128 MB	High-end Intel, AMD, or equivalent
	10,000	256 MB	
Medium (100-1000 hosts)	10,000	256 MB	3 GHz
	50,000	2 GB	
Large (>1000 hosts)	50,000	2 GB	3 GHz and up
	500,000	8 GB	

Server host compatibility

Important:

To use new features introduced in LSF Version 7 Update 6, you *must* upgrade all hosts in your cluster to LSF Version 7 Update 6.

LSF 6.x and 5.x servers are compatible with Platform LSF Version 7 master hosts. All LSF 6.x and 5.x features are supported by LSF Version 7 master hosts.

Upgrade from an earlier version of LSF on UNIX and Linux

Follow the steps in *Upgrading Platform LSF on UNIX and Linux* (lsf_upgrade_unix.pdf) to run `lsfinstall` to upgrade LSF:

- Upgrade a pre-version 7 UNIX or Linux cluster to LSF Version 7 Update 6
- Upgrade an LSF Version 7 Update 2, Update 3, Update 4, or Update 5 UNIX or Linux cluster to LSF Version 7 Update 6

Important:

DO NOT use the UNIX and Linux upgrade steps to migrate an existing LSF 7 Update 1 cluster to LSF Version 7 Update 6. Follow the manual steps in the document *Migrating to Platform LSF Version 7 Update 6 on UNIX and Linux* to migrate an existing LSF 7 Update 1 cluster to LSF Version 7 Update 6 on UNIX and Linux.

Migrate your existing LSF Version 7 or LSF 7 Update 1 cluster to Update 6 on UNIX and Linux

Follow the steps in *Migrating to Platform LSF Version 7 Update 6 on UNIX and Linux* (lsf_migrate_unix.pdf) to migrate an *existing* LSF 7 cluster:

- Migrate an existing LSF Version 7 cluster to LSF Version 7 Update 6 on UNIX and Linux
- Migrate an existing LSF 7 Update 1 cluster to LSF Version 7 Update 6 on UNIX and Linux

Note:

DO NOT use these steps to migrate an existing LSF 7 Update 2 or higher cluster to LSF Version 7 Update 6. Follow the steps in *Upgrading Platform LSF on UNIX and Linux* to upgrade LSF.

Migrate LSF on Windows from an earlier version

To migrate a *pre-version 7* cluster to a new LSF 7 on Windows cluster, follow the steps in *Migrating Your Windows Cluster to Platform LSF Version 7* (lsf_migrate_windows.pdf).

Note:

DO NOT use these steps to migrate an existing LSF 7 cluster to LSF Version 7 Update 6.

Migrate your existing LSF Version 7 cluster to Update 6 on Windows

To migrate an *existing* LSF 7 Windows cluster to Platform LSF Version 7 Update 6 on Windows, follow the steps in *Migrating Platform LSF Version 7 to Update 6 on Windows* (lsf_migrate_windows_to_update6.pdf).

Note:

DO NOT use these steps to migrate a pre-version 7 cluster to LSF Version 7 Update 6.

Update availability

At release, LSF Version 7 Update 6 includes all bug fixes and solutions up to and including August 17, 2009. Fixes after that date will be available in the next LSF release.

System requirements

Visit the Platform Computing Web site for information about supported operating systems and system requirements for Platform LSF:

<http://www.platform.com/Products/platform-lsf/technical-information>

HPC Portal and Platform Management Console

The HPC Portal is now provided as an alternative to the Platform Management Console on Linux 2.6 64-bit installations. The UNIX upgrade and migrations guides include instructions on how to install the HPC Portal, even if you have been using the Platform Management Console.

For all other platforms, you can install the Platform Management Console using the LSF Version 7 Update 5 PMC package:

- UNIX: Copy the LSF Version 7 Update 5 PMC packages from the FTP site to *LSF_TARDIR* (defined in *install.conf*). The installer automatically recognizes them.
- Windows: Install using the PMC executable from LSF Version 7 Update 5 on the FTP site.

API compatibility

If libraries need to be re-linked, applications need to be rebuilt if they use APIs that have changed in LSF Version 7 Update 6.

To take full advantage of new LSF Version 7 features, you should recompile your existing LSF applications with LSF Version 7.

New and changed LSF APIs

See the *LSF API Reference* for more information.

The following APIs have changed for LSF Version 7 Update 6:

- `queueInfoEnt`: Member added for resource reservation limits.
- `lsb_queueInfo`: Member added for resource reservation limits.
- `lsb_submit`: Option added for job descriptions.
- `lsb_modify`: Option added for job descriptions.
- `lsb_queryjobInfo`: Option added for job descriptions.
- `lsb_fetchjobInfo_ext`: Option added for job descriptions.

No new APIs were created for LSF Version 7 Update 6.

SSH

Since LSF Version 7 Update 4, Platform LSF supports OpenSSH (SSH-1 and SSH-2).

What's Changed in Platform LSF Version 7 Update 6

New and changed behavior

Multi-phase resource reservation

Multi-phase resource reservations can be made for job memory requirements. `rusage` strings set in the queue-level or application-level `RES_REQ` parameter (`l sb. queues` or `l sb. appl i cat i ons`) or in the `bsub -R` option can contain multiple durations with multiple memory and decay requirements. The resource requirements are merged if they occur at more than one level, and must satisfy any queue limits set by `RESRSV_LIMIT` in `l sb. queues`.

Single-phase memory requirements and multi-phase memory requirements can merge together, and one or both can appear as alternative `-R` options for a job. Multi-phase memory requirements cannot be used with multiple `-R` strings.

Resource reservation limits

Resource limits for consumable resources appearing in the `rusage` section can now be set at the queue level. These limits include maximum values, and optionally minimum values, which set the range of allowable resource requirements for job submissions to the queue.

Resource reservation limits are set in the parameter `RESRSV_LIMIT` in `l sb. queues`. Queue-level `RES_REQ` `rusage` sections must be within the range set by `RESRSV_LIMIT` or the queue-level `RES_REQ` is ignored. Merged job-level and application-level `rusage` sections must be within the range set by `RESRSV_LIMIT` or the job is rejected.

MultiCluster job forwarding model enhancement

Scheduling of MultiCluster jobs under the job forwarding model can be configured to consider remote queue attributes in addition to remote resources. Remote queue attributes are collected every `MC_PLUGIN_UPDATE_INTERVAL` (`l sb. params`).

The new scheduler configuration settings allow several options or combinations thereof through the parameter `MC_PLUGIN_SCHEDULE_ENHANCE` in `l sb. params`. Jobs forwarded under the job-forwarding model are then scheduled depending on:

- remote resources only
- remote resources and preemptable jobs
- remote resources, preemptable jobs, and free slots
- remote resources, preemptable jobs, and queue priority
- remote resources, preemptable jobs, and preemptable job queue priority

Some limitations apply to MultiCluster job forwarding scheduler:

- When an advance reservation is active on a remote cluster, slots within the advance reservation are excluded from the number of available slots.
- The submission cluster assumes all hosts in a hostgroup have the same boolean resources, as is required in hostgroup configuration.
- The submission cluster assumes all slots within a hostgroup are of the same host type.

SSH X11 forwarding

Users can now submit jobs using SSH X11 forwarding, which uses the SSH client they have installed. Administrators can configure `l sf. conf` with a value for `LSB_SSH_XFORWARD_CMD`.

Applies only to UNIX submission and execution hosts. This feature can be combined with `bsub -I` for an interactive session. The feature cannot be used with job arrays, chunk jobs,

or user account mapping. You cannot select or modify SSH X11 forwarding options in `esubs`. This feature cannot be combined with `-K`, `-IX`, or `-r` options of `bsub`.

Job description

Users can now specify a job description of up to 4094 characters upon job submission using the new command option `bsub -Jd`, the wrapper command `tssub -Jd`, or the new `esub` parameter `LSB_SUB_JOB_DESCRIPTION`.

The job description can be modified for a job, job array, or job array element using `bmod -Jd`. The job description appears in the output from `bj obs -l` and `bhi st -l`, and in the `lsb.events` and `lsb.acct log` files. Searches for specific job descriptions can be made using `bj obs -Jd` or `bhi st -Jd`, and can include the wildcard character `*`.

Some limitations apply to the new job description field:

- Job descriptions submitted with `bsub` apply to all elements of an array. Job descriptions for array elements can be changed individually using `bmod -Jd`.
- The `bsub` option `-Jd` cannot be used with `-jsdl` or `-jsdl_strict`.

Expansion of job exception notification

Job exception notifications can now be extended to include more information by setting `EXTEND_JOB_EXCEPTION_NOTIFY=Y` in `lsb.params`. Full information now includes `JOB_ID`, `RUN_TIME`, `IDLE_FACTOR`, `USER`, `QUEUE`, `EXEC_HOST`, and `JOB_NAME`.

You can also set the format to truncate or not in the script `LSF_SERVERDIR/eadmin` by setting `JOB_EXCEPTION_EMAIL_FORMAT` to `full` or `fixed` (truncated).

New and changed configuration parameters and environment variables

The following configuration parameters and environment variables are new or changed for LSF Version 7 Update 6:

lsb.params

- `MC_PLUGIN_SCHEDULE_ENHANCE`: MultiCluster job-forwarding model only. When defined as a valid value, the submission cluster scheduler considers specified remote queue information in addition to remote resource availability as for `MC_PLUGIN_REMOTE_RESOURCE=Y` in `lsf.conf`.
- `MC_PLUGIN_UPDATE_INTERVAL`: Multicluster job-forwarding model only. Interval between remote queue information updates to the submission cluster. Disabled when set to zero.
- `EXTEND_JOB_EXCEPTION_NOTIFY`: Job exception notifications can now be extended to include more information. Full information now includes `JOB_ID`, `IDLE_FACTOR`, `RUN_TIME`, `USER`, `QUEUE`, `EXEC_HOST`, and `JOB_NAME`.

lsf.conf

- `MC_PLUGIN_REMOTE_RESOURCE`: Multicluster job-forwarding model only. Now enabled when `MC_PLUGIN_SCHEDULE_ENHANCE` is defined as a valid value, as well as when `MC_PLUGIN_REMOTE_RESOURCE=Y`.

- `LSB_SSH_XFORWARD_CMD`: For SSH X11 forwarding jobs, specifies the SSH command to run when a user runs `bsub -XF`. Accepts the full PATH and options of a regular SSH command.

lsb.applications

- `RES_REQ`: Now must satisfy `RESRSV_LIMIT` (set in `lsb.queues`), if used. Can contain multi-phase memory requirements.

lsb.queues

- `RESRSV_LIMIT`: Sets resource reservation limits for consumable resources listed in the `rusage` string.
- `RES_REQ`: Now must satisfy `RESRSV_LIMIT`, if used. Can contain multi-phase memory requirements.

New commands

There are no new commands.

Changed commands, options, and output

The following command options and output are new or changed for LSF Version 7 Update 6:

bacct

The `bacct` command now includes information about the job description, if applicable.

bjobs

- The option `-l` for exited jobs now includes the detailed termination reason (if available) following the signal or exit code.
- The option `-l` now includes information about SSH X11 forwarding jobs, and the job description, if applicable.
- The new option `-Jd` retrieves jobs based on the specified job description.

bhist

- The `bhist` command output now includes information about SSH X11 forwarding jobs, and the job description, if applicable.
- The `bhist` command now includes the `-Jd` option, which displays job descriptions.

bmod

The `bmod` command has new options `-Jd` which accepts a job description of up to 4094 characters, and `-Jdn` which removes the job description.

`bmod -R` `rusage` values for pending jobs now must satisfy the limits set by `RESRSV_LIMIT` in `lsb.queues`. `bmod -R` `rusage` values for running jobs now must satisfy the maximum limits set by `RESRSV_LIMIT`, but can be lower than the minimum limits.

`bmod -R` can contain multi-phase memory `rusage` values for pending jobs. `bmod -R` multi-phase memory `rusage` values for running jobs do not take effect until after the current reservation phase.

bqueues

The `bqueues -l` command output now includes the `RESRSV_LIMIT` parameter.

bsub

- The new option `-Jd` accepts a job description of up to 4094 characters.
- `bsub -R` rusage resource requirements must satisfy `RESRSV_LIMIT` (set in `lsb.queues`), if used. Can contain multi-phase memory requirements.
- The new option `-XF` submits jobs using SSH X11 forwarding.

bswitch

To switch a pending job to a new queue, the job's rusage values now must satisfy the queues limits set by `RESRSV_LIMIT` in `lsb.queues`.

To switch a running job to a new queue, the job's rusage values now must satisfy the maximum limits set by `RESRSV_LIMIT`, but can be lower than the minimum limits.

Jobs with multi-phase memory requirements can be switched to other queues at any time, without waiting for the current phase to finish.

tssub

The `tssub` command has a new option `-Jd`, which accepts a job description of up to 4094 characters.

New configuration files

No configuration files are new for LSF Version 7 Update 6

New and changed accounting and job event fields

lsb.acct

The `JOB_FINISH` log contains the new job description field.

lsb.events

The `JOB_NEW` log contains the new job description field.

Bugs fixed since April 2009 (LSF 7 Update 5)

Bugs fixed in the August 2009 update (LSF Version 7 Update 6) since the April 2009 update (LSF Version 7 Update 5) are listed in the document *Fixed Bugs for Platform LSF Version 7 Update 6*.

Known Issues

Platform LSF Version 7 Update 6

Platform LSF

- The LSF 6.x `passwd.lsfuser` password file is not compatible with LSF 7. In LSF 6.x, if a domain name is defined with `LSF_USER_DOMAIN` in `lsf.conf`, LSF only saves the user name to the password entry in the `passwd.lsfuser` password file.

In LSF 7, the user name part of the password entry in the `passwd.lsfuser` file is a fully qualified user name (`domain_name\user_name,`), even if `LSF_USER_DOMAIN` is defined in `lsf.conf`.

Workaround: If your cluster defines `LSF_USER_DOMAIN` in `lsf.conf`, you must upgrade the entire 6.x cluster to LSF 7, and have all users run `lspasswd` to reenter their password.

Without this workaround, LSF 7 daemons cannot find the 6.x password entry and 6.x daemons cannot see the password saved on LSF 7 servers.

If you must keep a mixed LSF 7 and LSF 6.x environment:

- You cannot define `LSF_USER_DOMAIN` in `lsf.conf`.
- Users must run `lspasswd` on both the 6.x and LSF 7 server hosts.

This problem affects all LSF versions before Version 7, LSF 6.0, 6.1, and 6.2.

- If you want to use LSF Version 7 Update 6 on SUSE 11 with x86-64 processors, contact Platform Support for a patch.
- Backfill jobs can overlap exclusive compute unit reservations. Free slots within an exclusive compute unit reservation appear available when using `bslots` to schedule backfill jobs. Job slots used by the exclusive compute unit job do not appear available beyond the reservation start time.
- When specifying a domain name in any LSF configuration file, use all uppercase characters. For example: `LSF/lsfadmin` instead of `lsf/lsfadmin`. Configuration settings will not be applied if the domain is in lowercase characters.
- When a job has been suspended, it may be scheduled to run before a pending job with a higher priority. The higher priority pending job runs as soon as the next scheduling period starts.
- Jobs submitted with `CPUSET_TYPE=none` are still considered CPUSET jobs, and do not support compound resource requirements. For example, the following job submission will not run:

```
bsub -n4 -R "2*{type=local}+2*{type=local}" -ext "CPUSET[CPUSET_TYPE=none]"
```
- When using ProPacks in a cluster with mixed host types, you must also specify "same[type]" in the resource requirement string or use `%a` to run applications on appropriate host types. Only setting the ProPack version number is not sufficient to identify the possible host types a job can run on.
- If there are no PSET hosts in your cluster, the PSET plug in is not supported and should not be configured in `lsb.modules`.
- When compiling an application with a LSF Version 7 Update 6 library, specify the option `-ldl`.
- The SGI-MPI integration with LSF PAM has been enabled on Linux, but `LSF_PAM_USE_ASH` is not supported on `linux2.6-glibc2.3-x86_64`.

Platform LSF Session Scheduler

A Session Scheduler job suspended with `bstop` enters `USSUP` state and the job cannot be killed with `bkill`. The out-of-box `TERMINATE_CONTROL=SIGINT` configuration in Session Scheduler causes only `SIGINT` to be sent to the job from `bkill`. To be terminated, the job must receive the required `SIGCONT`, `SIGINT`,

SIGTERM, and SIGKILL signals. You must run `bresume` to cause the job to receive the correct `kill` signals.

Platform LSF License Scheduler

When installing License Scheduler standalone, the installer removes EGO environment variables from `cshrc.lsf` and `profile.lsf`. Specify a different `LSF_TOP` from the LSF installation to install standalone License Scheduler.

Platform LSF on EGO

In the resource plan, if you specify reclamation with a grace period, the grace period is ignored by LSF. All resources are reclaimed immediately.

Platform Management Console

LSF admin cannot start the PMC in EGO-decoupled mode. Since the PMC has already been started by `root`, the log files are owned by `root`. When the PMC is restarted by the LSF cluster administrator, `admin` does not own the existing log files resulting in the JAVA (tomcat) process stalling.

LDAP support

Integrating LDAP with LSF has some additional requirements:

To install LSF in an LDAP environment:

- LSF admin must be a defined user in LDAP.
- The OS must be configured to use LDAP for authentication.
- LDAP admin must grant privileges to the LSF installer user (usually `root`) to retrieve the user list from the LDAP server.

To allow LDAP users GUI logon access:

- The OS must be configured to use LDAP for authentication.
- LDAP admin must grant privileges to the GUI process startup user (usually `root`) to retrieve the password list from the LDAP server.

PERF/Reports

If you did not set `DERBY_DB_HOST` in `install.conf`, you can still enable the Derby database host after installation. See procedure that follows.

Enabling the Derby database host after installation

If you installed the Platform Management Console (PMC) or the HPC Portal:

1. Edit the `derby_service.xml` file.

The `derby_service.xml` file is located in the EGO service directory:

- UNIX: `$PERF_TOP/<cluster_name>/eservice/esc/conf/services`
- Windows: `%PERF_TOP%\ego\<cluster_name>\eservice\esc\conf\services`

2. Specify the database host name in the `<ego: ResourceRequirement >` tag.

Replace *hostname* in the following with the name of your database host: `<ego: ResourceRequirement >select (hostname)`

3. Launch the database configuration tool.
 - In UNIX, run `$PERF_TOP/common/bin/dbconfig.sh`
 - In Windows, run `%PERF_TOP%\common\bin\dbconfig`
4. Specify the details for your data source and database host.
5. Restart the Derby service (derbydb).

Download the Platform LSF Version 7 Distribution Packages

Download the LSF distribution packages two ways:

- Through FTP at `ftp.platform.com`
- Through the World Wide Web at `my.platform.com`

Download LSF through FTP

Access to the Platform FTP site is controlled by login name and password. If you cannot access the distribution files for download, send email to support@platform.com.

1. Log on to the LSF file server.
2. Change to the directory where you want to download the LSF distribution files. Make sure that you have write access to the directory. For example:

```
# cd /usr/share/lsf/tarfiles
```

3. FTP to the Platform FTP site:

```
# ftp ftp.platform.com
```

4. Provide the login user ID and password provided by Platform.
5. Change to the directory for the LSF Version 7 release:

```
ftp> cd /distrib/7.0
```

6. Set file transfer mode to binary:

```
ftp> binary
```

7. For LSF on UNIX and Linux, get the installation distribution file.

```
ftp> get platform_lsf_update6/lsf7Update6_lsfinstall.tar.Z
```

Tip:

Before installing LSF on your UNIX and Linux hosts, you must uncompress and extract `lsf7Update6_lsfinstall.tar.Z` to the same directory where you download the LSF product distribution tar files.

8. Get the distribution packages for the products you want to install on the supported platforms you need. For example:

- For the Solaris 7 64-bit version of LSF Version 7:

```
ftp> get platform_lsf_update6/lsf7Update6_sparc-sol7-64.tar.Z
```

Tip:

Put the LSF distribution files in the same directory as the installation tar files. *Do not* uncompress and extract the distribution files.

- For 32-bit LSF Version 7 on Windows:

```
ftp> get platform_lsf_update6/lsf7Update6_win32.msi
```

9. Download the Platform LSF Version 7 documentation from `/distribution/7.0/docs/`.

```
ftp> get docs/lsf7Update6_documentation.zip
```

```
ftp> get docs/lsf7Update6_documentation.tar.Z
```

Tip:

After installing LSF, you should extract the Platform LSF Version 7 documentation files to `LSF_TOP/docs/lsf`. Browse `LSF_TOP/docs/lsf/index.html` to access the LSF Version 7 Knowledge Center. If you install the Platform Management Console, the LSF Version 7 Knowledge Center is installed automatically to `LSF_TOP/docs/lsf`.

10. Download the Platform EGO Version 1.2.3 documentation from `/distribution/7.0/docs/`.

```
ftp> get docs/ego1.2.3_documentation.zip
```

```
ftp> get docs/ego1.2.3_documentation.tar.Z
```

Tip:

After installing LSF, you should extract the EGO documentation files to `LSF_TOP/docs/ego`. Browse `LSF_TOP/docs/ego/index.html` to access the EGO Knowledge Center. If you install the Platform Management Console, the EGO Knowledge Center is installed automatically to `LSF_TOP/docs/ego`.

11. Optional. Download the Platform Management Console (PMC) distribution package from `/distribution/7.0/platform_lsf_update6/`.

```
ftp> get platform_lsf_update6/lsf7Update5_pmc_linux-x86.tar.Z
```

OR

```
ftp> get platform_lsf_update6/lsf7Update5_pmc_linux-x86_64.tar.Z
```

Note:

To take advantage of the Platform LSF reporting feature, you *must* download and install the Platform Management Console. The reporting feature is only supported on the same platforms as the Platform Management Console: 32-bit and 64-bit x86 Windows and Linux operating systems.

12. Exit FTP.

```
ftp> quit
```

Download LSF from my.platform.com

You must provide your Customer Support Number and register a user name and password on `my.platform.com` to download LSF.

To register at `my.platform.com`, click [New User?](#) and complete the registration form. If you do not know your Customer Support Number or cannot log in to `my.platform.com`, send email to support@platform.com.

1. Navigate to <http://my.platform.com>.
2. Choose Products > Platform LSF Family > LSF 7 Update 6.
3. Under Download, choose Product Packages.
4. Select the Updates, Packages, and Documentation you wish to download.
5. Log out of my.pl at form. com.

Archive location of previous update releases

Directories containing release notes and distribution files for previous LSF Version 7 update releases are located on the Platform FTP site under /di stri b/7. 0/archi ve. Archive directories are named relative to the current update release:

- LSF Version 7 Update 1: /di stri b/7. 0/archi ve/updat e1
- LSF Version 7 Update 2: /di stri b/7. 0/archi ve/updat e2
- LSF Version 7 Update 3: /di stri b/7. 0/archi ve/updat e3
- LSF Version 7 Update 4: /di stri b/7. 0/archi ve/updat e4
- LSF Version 7 Update 5: /di stri b/7. 0/archi ve/updat e5

Install Platform LSF Version 7

Installing Platform LSF involves the following steps:

1. Get a DEMO license (l i cense. dat fie).
2. Run the installation programs.

Get a Platform LSF demo license

Before installing Platform LSF Version 7, you must get a demo license key.

Contact license@platform.com to get a demo license.

Put the demo license file l i cense. dat in the same directory where you downloaded the Platform LSF product distribution tar files.

Run the UNIX and Linux installation

Use the l s f i n s t a l l installation program to install a new LSF Version 7 cluster, or upgrade from an earlier LSF version.

See *Installing Platform LSF on UNIX and Linux* for new cluster installation steps.

See the *Platform LSF Command Reference* for detailed information about l s f i n s t a l l and its options.

Important:

DO NOT use the UNIX and Linux upgrade steps to migrate an existing LSF 7 cluster or LSF Version 7 Update 1 cluster to LSF Version 7 Update 6. Follow the manual steps in the document *Migrating to Platform LSF Version 7 Update 6 on UNIX and Linux* to migrate an existing LSF 7 Update 1 cluster to LSF Version 7 Update 6 on UNIX and Linux.

Run the Windows installation

Platform LSF on Windows 2000, Windows 2003, and Windows XP is distributed in the following packages:

- `lsf7update6_win32.msi`
- `lsf7update6_win-x64.msi`
- `lsf7update6_win-ia64.msi`

See *Installing Platform LSF on Windows* for new cluster installation steps.

To migrate your existing LSF Version 7 cluster on Windows to LSF Version 7 Update 6, you must follow the manual steps in the document *Migrating Platform LSF Version 7 to Update 6 on Windows* (`lsf_migrate_windows_to_update6.pdf`).

Install Platform LSF License Scheduler

See *Using Platform LSF License Scheduler* for installation and configuration steps.

Install Platform LSF Session Scheduler

See *Installing and Running Platform LSF Session Scheduler* for installation and configuration steps.

Install Platform LSF Desktop Support

See the *Platform LSF Desktop Support Administrator's Guide* for installation and configuration steps.

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

`my.platform.com`—Your one-stop-shop for information, forums, e-support, documentation and release information. `my.platform.com` provides a single source of information and access to new products and releases from Platform Computing.

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

The Platform LSF Knowledge Center is your entry point for all 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.

Get the latest LSF documentation from my.platform.com. Extract the LSF documentation distribution file to the directory `LSF_TOP/docs/lsf`.

Platform EGO documentation

The Platform EGO Knowledge Center is your entry point for Platform EGO documentation. It is installed when you install LSF. To access and search the EGO documentation, browse the file `LSF_TOP/docs/ego/1.2.3/index.html`.

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

Platform training

Platform's Professional Services training courses can help you gain the skills necessary to effectively install, configure and manage your Platform products. Courses are available for both new and experienced users and administrators at our corporate headquarters and Platform locations worldwide.

Customized on-site course delivery is also available.

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.

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We'd like to hear from you

If you find an error in any Platform documentation, or you have a suggestion for improving it, please let us know:

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doc@platform.com

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Information Development
Platform Computing Inc.
3760 14th Avenue Markham
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Be sure to tell us:

- The title of the manual you are commenting on
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