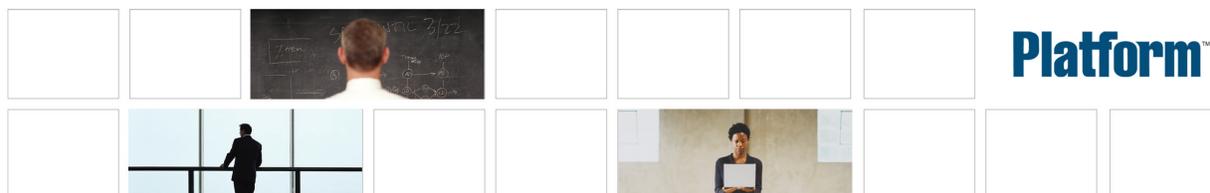

Installing a Single-Host Cluster on Windows

Platform EGO
Version 1.2.3
January 2008



Copyright

© 1994-2007 Platform Computing Corporation

All rights reserved.

Although the information in this document has been carefully reviewed, Platform Computing Corporation ("Platform") does not warrant it to be free of errors or omissions. Platform reserves the right to make corrections, updates, revisions or changes to the information in this document.

UNLESS OTHERWISE EXPRESSLY STATED BY PLATFORM, THE PROGRAM DESCRIBED IN THIS DOCUMENT IS PROVIDED "AS IS" AND WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT WILL PLATFORM COMPUTING BE LIABLE TO ANYONE FOR SPECIAL, COLLATERAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING WITHOUT LIMITATION ANY LOST PROFITS, DATA, OR SAVINGS, ARISING OUT OF THE USE OF OR INABILITY TO USE THIS PROGRAM.

We'd like to hear from you

You can help us make this document better by telling us what you think of the content, organization, and usefulness of the information. If you find an error, or just want to make a suggestion for improving this document, please address your comments to doc@platform.com.

Your comments should pertain only to Platform documentation. For product support, contact support@platform.com.

Document redistribution and translation

This document is protected by copyright and you may not redistribute or translate it into another language, in part or in whole.

Internal redistribution

You may only redistribute this document internally within your organization (for example, on an intranet) provided that you continue to check the Platform Web site for updates and update your version of the documentation. You may not make it available to your organization over the Internet.

Trademarks

®LSF is a registered trademark of Platform Computing Corporation in the United States and in other jurisdictions.

™ACCELERATING INTELLIGENCE, PLATFORM COMPUTING, PLATFORM SYMPHONY, PLATFORM JOBSCHEDULER, PLATFORM ENTERPRISE GRID ORCHESTRATOR, PLATFORM EGO, and the PLATFORM and PLATFORM LSF logos are trademarks of Platform Computing Corporation in the United States and in other jurisdictions.

®UNIX is a registered trademark of The Open Group in the United States and in other jurisdictions.

Linux® is the registered trademark of Linus Torvalds in the U.S. and other countries.

Microsoft is either a registered trademark or a trademark of Microsoft Corporation in the United States and/or other countries.

®Windows is a registered trademark of Microsoft Corporation in the United States and other countries.

Intel®, Itanium, and Pentium are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.

Other products or services mentioned in this document are identified by the trademarks or service marks of their respective owners.

Third-party license agreements

<http://www.platform.com/Company/third.part.license.htm>

Third-party copyright notices

<http://www.platform.com/Company/Third.Party.Copyright.htm>

Contents

Part I: Using this guide ... 5

1	Install a Single-Host Cluster	7
2	Migrate to a Multiple-Host Cluster	13

Using this guide

This guide describes installing EGO on a single Windows computer to function as a master host, management host, and compute host in a single-host cluster.

You can set up a single-host cluster by following the steps in [Install a Single-Host Cluster](#).

After you have finished testing or demonstrating your single-host cluster, you can also convert your host to the master host of a production cluster by following the steps in [Migrate to a Multiple-Host Cluster](#).

When considering the possibility of converting your single-host cluster to the master host of a production cluster, check the specifications of your Windows computer against the following suggested requirements for a large production cluster:

- For a management host (which includes the master host), we suggest at least a 1- or 2-CPU (>2.0GHz) computer with 4GB RAM, 30GB storage.

Using this guide

Install a Single-Host Cluster

The following steps summarize the installation of a single-host cluster. This host simultaneously acts as master host, management host, and compute host.

1. Obtain the necessary files:
 - a) Obtain an EGO license
 - b) Obtain the MSI package
2. As `egoadmin`, deploy the software:
 - a) Run the MSI package on a single-host cluster.
3. Test:
 - a) Test the web server.

One host can perform all duties in the cluster. You can use this host to test or demonstrate some of the functions you would perform in a production cluster.

If you wish to convert the host into a functional master host of a production cluster, follow the steps described in [Migrate to a Multiple-Host Cluster](#).

Obtain an EGO license

You need to install an EGO license to use your single-host cluster.

- You can get two types of licenses:
 - Demo license: A temporary license to be used for evaluation purposes. Contact Platform Computing to obtain a demo license.
 - Permanent license: A license granted after you purchase the product from Platform Computing.

Tip:

Before installing, you should copy your licence to a location that you can easily access from the master host. You will need to locate this file to configure your license.

Obtain the MSI package

1. Obtain the EGO has one MSI package for Windows hosts: ego1.2.3_win32.msi

Run the MSI package on a single-host cluster

Check the following:

- That you have an EGO MSI package.
- That you have a valid EGO license file.
- That your Windows operating system is using MSI 2.0 or later.

The EGO MSI package does not support MSI 1.0.

- That you have access to a Windows account that is a member of the local Administrators group. This account will be the cluster administrator of your single-host cluster. This account requires the following privileges:
 - Act as part of the operating system
 - Debug programs
 - Increase quotas
 - Log on as a service
 - Replace a process level token

Tip:

If you intend to convert your single-host cluster into a production cluster, we recommend that you use a dedicated domain account named `egoadmi n` to be the cluster administrator. In this example, the name of the cluster administrator is `egoadmi n`, and the name of the domain is `DOMAI N`.

- That the installation directory does not exist or is empty.

The default installation directory is `C: \EG0`.

- That the required connection ports are not in use.

The default base connection port is 7869. EGO uses five consecutive ports starting from this base port (7869-7873).

Tip:

Use `net st at - an` to see if these ports are in use. If they are, choose a base port where the next three consecutive ports are also not in use. For example, if you choose 7939 as your base port, check that ports 7939-7943 are not in use.

- The required web server ports are not in use.

The default web server ports are 8080, 8005, and 8009.

- The required web service gateway port is not in use.

The default web service gateway port is 9090.

- The required service director port, port 53, is not in use.
- The required Derby database port, port 1527, is not in use.

If you customize the cluster name, cluster administrator, installation directory, or ports, you should take note of your customized settings. If you later migrate this host for use in a production cluster, you must use the same settings when adding other hosts to this cluster.

1. Log on to your host as a local Administrator account.

For example, log on as `DOMAI N\egoadmi n`.

2. Run the installation package by double-clicking the MSI file.
3. At the Installation Directory dialog, specify the path to the installation directory and click Next.

For example `C: \EGO`.

4. At the Master Host dialog, specify the name of your host and click Next.
5. At the License File dialog, specify the location of your license file and click Next.

For example, `C: \Temp\l i cense. dat`.

6. At the Cluster Name dialog, specify the name of your single-host cluster and click Next.

The default is `cl uster 1`.

Tip:

Your cluster name is case sensitive and can only use up to 39 alphanumeric characters or underscores. Do not use the name of any host or user as the name of your cluster. For example, `Sampl e_cl uster 1`.

7. At the Cluster Administrator dialog, specify the name and password of your cluster administrator and click Next.

The default is the current account. For example, `DOMAI N\egoadmi n`.

8. At the Derby DB Host dialog, click Next. You must specify the master host to make Reporting work in a single-host cluster.

The default is the master host.

9. At the Connection Base Port dialog, specify the connection base port and click Next.

The default is 7869.

10. At the Startup dialog, click Next.

The default is to start system services after installation.

11. At the Summary dialog, review your settings and click Install.

After you complete the installation process, you may delete the license file from your temporary directory.

Test the web server

Check that the following is true:

- You installed and configured the software on the master host.
- You started the master host.

1. Launch any web browser and visit this URL.

`http://master_host_name:8080/Platform`

If you see the Platform Management Console web page, your web server is running.

2. Log on to the Console and check host status (optional):

- a) User Name: Admin

- b) Password: Admin

- c) On the Cluster Health section of the Cluster Health Dashboard, check the host status of the master host is ok.

Tip:

This may take several minutes, depending on your cluster and host configuration.

Migrate to a Multiple-Host Cluster

Migrate a functional single-host cluster to a master host for use in a multiple-host cluster.

Before migrating your host, check the following:

- That you have a functional single-host cluster
- That you have the guide titled *Planning and Installing Your Cluster on Windows*
- That, at a minimum, you read and performed the necessary actions listed in "Chapter 2: Plan Your Cluster" in *Planning and Installing Your Cluster on Windows*. For example,
 - You prepared the additional management hosts and compute hosts to be added to your cluster
 - You set up your file server (Host F) with a shared directory accessible to other hosts in the cluster (C:\EGOshare shared as \\HostF\EGOshare)

After successfully testing your single-host cluster, you may wish to convert your host into a master host for use in a multiple-host cluster. To do this, you need to reconfigure your host to function in a cluster containing more than one host.

This appendix is intended to be a replacement for "Chapter 3: Install the Master Host" in the *Planning and Installing Your Cluster on Windows* guide, because you do not need to install a new master host if you migrate your host to a master host.

The database installed with a single-host cluster functions with a multiple-host cluster, but is not supported in a production environment. To make the Reporting feature work in a production cluster, you will have to move to a commercial database, as described in *Administering Platform EGO*.

The following steps summarize the migration of your single-host cluster to a master host for use in a multiple-host cluster.

1. Create the shared directory
2. Shut down the cluster
3. Reconfigure the single-host cluster
4. Start the host
5. Test that the host is only a management host

Reconfigure the single-host cluster

Reconfigure your single-host cluster for use as a master host in a multiple-host cluster.

Your host currently stores its configuration files in a local directory. You need to redefine your host to store its configuration files in a shared directory so you can add other management hosts to your cluster. This is necessary to convert your single-host cluster into a multiple-host cluster.

Create the shared directory

1. Create and share an empty directory on a suitable file server host, for example, `\\HostF\EGOshare`.

Shut down the cluster

1. Log on to the host as `egoadmin`.
2. Log on to EGO as cluster administrator. For example, run `egosh user login -u Admin -x Admin`
3. Run `egoshutdown.bat` to shut down the cluster.

Redefine the host as a management host only

Redefine your host as a management host only, using configuration files on the shared directory.

You are logged on as `egoadmin`.

Take this step on every management host, including all master candidates.

1. Start the command console.
2. Run the `egoconfig mghost` command:

```
egoconfig mghost shared_dir user_name password
```

where *shared_dir* is the shared directory that contains important files such as configuration files to support failover, *user_name* is the `egoadmin` account, and *password* is the `egoadmin` password.

For example:

```
egoconfig mghost \\HostF\EGOshare DOMAIN\egoadmin mypasswd
```

After you run `egoconfig mghost`, the host:

- Has access to important system files on the shared directory
- Belongs to the ManagementHosts resource group.
- Uses `egoadmin` to run services instead of the Windows Local System account.

Remember:

The shared directory is the same for all management hosts.

The configuration does not take effect until you close and re-open the command console to reset the environment.

Start the host

Start EGO on the Windows host.

You are logged on as `egoadmi n`.

To start the local EGO Windows host, perform the following steps:

1. Start the command console.
2. Start EGO:

`egosh ego start`

You have now started EGO on the host.

Test that the host is only a management host

1. Start the command console
2. Look for the host in the ComputeHosts group in your cluster:

egosh resource group ComputeHosts

If you cannot see the host name in the Resource List list in the ComputeHosts group, the host is successfully configured as a management host only.

Note:

This test only detects hosts that are running.