Installing and Configuring the eG CLI

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Chapter 1

Introduction

The eG Enterprise Suite periodically collects useful performance information from the network, systems, and applications in an environment, stores the performance data so collected in an Oracle / MS SQL server backend, and presents them to users in a 100%, web-based management console.

Typically, users with administrative rights can configure the infrastructure that needs to be monitored. Configuration involves a sequence of tasks that prepares the environment for monitoring - this includes identifying and adding the components to be monitored, configuring the tests pertaining to these components, setting thresholds, configuring additional external and remote agents for the environment, etc. Typically, a user must login to the web-based eG administrative interface as an admin user in order to perform the above-mentioned tasks.

In many large data centers, an orchestration solution such as HP Operations Orchestration (HPOO) software, is used to automate routine IT tasks. In such environments, the eG manager must integrate seamlessly with the automation tool, so that the eG Enterprise system can be automatically administered via the tool.

Some other environments may use custom front-ends / portals, or third-party reporting engines for viewing and analyzing information. In such environments, administrators may need to quickly extract the performance data from the eG database and export it to the custom tools for display and anaysis.

To enable this, the eG Enterprise suite provides a command-line interface (CLI). This interface allows the following:

- Allows the automation tool/script to communicate with the eG manager and perform critical configuration tasks on the manager;
- Allows users to quickly retrieve raw performance data stored in the eG database, and save the data in a preferred format.

The key benefits of such an integration are as follows:

- Minimizes user intervention in the configuration of the monitoring system;
- Assures administrators of quick and easy access to critical performance statistics, without interacting directly with the eG database, thereby shielding the database from abuse;

Currently, the command-line interface provided by eG Enterprise - known as the **eG CLI -** can be used for performing the following tasks only:

- Adding/modifying/removing components for monitoring
- Managing/Unmanaging components
- Adding/removing external agents

- Adding/removing remote agents
- Assigning/Disassociating agents from a manager in a redundant manager setup
- Adding/Modifying/Deleting Quick Maintenance Policies
- Assigning Quick Maintenance Policies to Components/Hosts/Tests
- Adding/Modifying/Deleting Independent Policies
- Adding/Modifying/Deleting Maintenance Policy Groups
- Assigning Independent Policy to Maintenance Policy Groups
- Associating Maintenance Policy Groups with Infrastructure Elements
- Enabling/Disabling Tests
- Displaying the Remote agents
- Displaying the External agents
- Displaying the Components
- Displaying the test names for a Component Type
- Include/Exclude Components for Test
- Include/Exclude Tests for Component
- Displaying the Maintenance Policies
- Displaying the details of the Maintenance Policies
- Displaying the details of the Tests
- Adding/Modifying/Deleting a User
- Associating Components to a User
- Executing queries on the eG manager for retrieving performance metrics from the test, trend, and threshold tables

1.1 How does the eG CLI Work?

The eG CLI is currently supported on Windows, Linux, and Solaris environments.

By default, the eG CLI is bundled with the eG manager. Accordingly, once the eG manager is installed, the CLI-related files automatically get installed into the **<EG_INSTALL_DIR>\egcli** directory (on Windows; on Unix, this will be the **/opt/egurkha/egcli** directory). You can then proceed to issue the CLI commands from the Windows command prompt / Unix shell prompt on the eG manager host, and easily administer the eG Enterprise system.

On the other hand, to install eG CLI on a remote Windows/Linux/Solaris host, you will have to run a special set-up program that is provided. This is called **eGCLI.exe** on Windows environments, **iCLI_linux** on Linux and **iCLI_solaris** on Solaris. If an automation tool is in use in your environment, the setup program has to be executed on the host on which the automation tool (say, HPOO) operates. On the other hand, if no orchestration engine is in use in your environment, then, you can run the setup program on any remote host in your environment, so that eG CLI gets installed on that host.

Once installed, you need to configure the CLI to access the eG manager in the target environment, so that the CLI can execute commands/scripts on it to setup the environment for monitoring.

Where an automation tool pre-exists, soon after CLI installation, you will have to explicitly configure the tool with the commands supported by the CLI. If a user then logs into the tool and invokes any of the configured commands, the CLI establishes an HTTP/HTTPS connection with the eG manager indicated by the command, and automatically executes the issued command on that manager.

If the eG CLI has been installed on a remote client instead, you can either directly issue the eG CLI commands from the command prompt of the client or can bundle the commands into a script that can be executed from the prompt. The command/script will then establish an HTTP/HTTPS connection with the indicated eG manager and perform the configuration / database-related tasks on that manager.

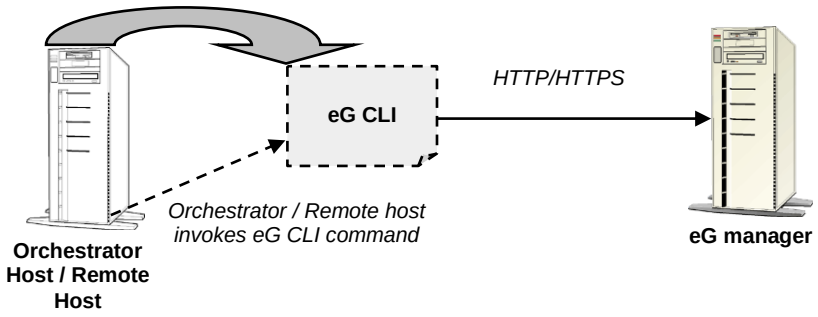

Figure 1.1: How the eG CLI works

In a redundant eG manager setup on the other hand, the eG CLI should be configured to communicate with the primary manager alone, as administrative operations can be performed only on this manager. Once this is done, the redundant manager architecture will ensure that the configuration changes effected on the primary manager are automatically replicated to the secondary manager(s).

The next chapter will discuss how to install the eG CLI and how to configure it to communicate with individual managers.

Chapter 2

Installing and Configuring the eG CLI

This chapter provides detailed steps for installing and configuring the eG CLI.

2.1 Pre-requisites for Installing the eG CLI

Before installing the eG CLI, ensure that the following are in place:

- A Windows/Linux/Solaris system with/without an orchestration engine operating on it;
- The system that will host the eG CLI should be able to access the eG management console;
- A minimum of 75 MB disk space should be available on the system;

Note:

The eG CLI can co-exist with the eG agent - i.e., if the orchestrator host or the target remote client already hosts an eG agent, you can still install the **eG CLI** on that host.

2.2 Installing the eG CLI on Unix Environments

To install the eG CLI on a Linux host, you will have to run a setup script called **iCLI_linux**. To install the eG CLI on a Solaris host on the other hand, the setup script you should run is **iCLI_solaris**.

Note:

The script for installing the eG CLI on a Unix host requires super-user privileges for execution.

Upon running the script, the steps discussed below will follow:

1. The eG CLI on Unix should be installed and executed by a separate user. Provide the name of this eG user when prompted.

```
This script will install the eG CLI.
The eG CLI must be executed by a separate user. If you have
already installed the eG manager/agent on this system, please
use the same user account for the eG CLI installation.

Enter the name of the eG user [egurkha]: egcli
```

2. Next, specify where the eG CLI should be installed - i.e., the install directory of the eG CLI.

```
Enter the directory in which the eG CLI should be installed [/opt]: /opt
```

3. Then, enter the group to which the eG user belongs.

```
Enter the group to which the eG user is to be associated [egurkha]: egurkha
```

4. Provide the password of the eG user that you just created.

```
The installer will now install the eG CLI...
Press <Enter> to continue, or <CTRL-C> to stop the installation

Creating user egcli belonging to group egurkha ...
useradd: warning: the home directory already exists.
Not copying any file from skel directory into it.
Changing password for user egcli.
New UNIX password:
Retype new UNIX password:
```

5. Once the instalation ends, a message indicating whether/not the CLI installation was successful will appear.

```
************************************************************
The eG CLI has been successfully installed!
************************************************************
```

2.3 Installing the eG CLI on Windows Environments

As already mentioned, the eG CLI is provided as a set-up program called **eGCLI.exe**, which can either be installed on the host on which the automation tool (say, HPOO) operates or on any remote Windows client chosen for this purpose.

Follow the steps below to install the eG CLI:

1. Login to the system hosting the orchestration engine.
2. Run the **eGCLI.exe** provided to you.
3. Figure 2.1 then appears.

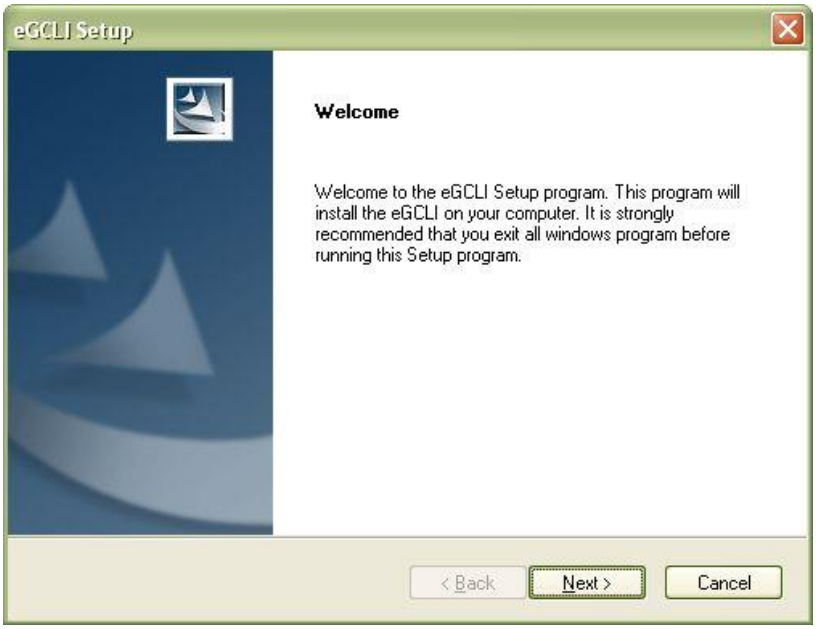

Figure 2.1: The eGCLI Welcome screen

4. Click the **Next** button in Figure 2.1 to proceed with the setup.
5. Study the terms of the license agreement provided in Figure 2.2, and click the **Yes** button therein to accept the terms.

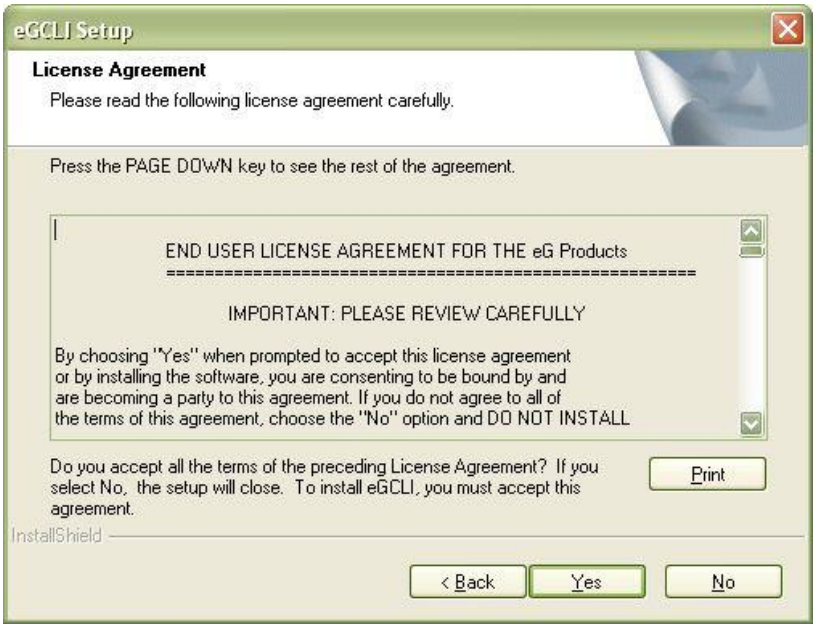

Figure 2.2: Accepting the license terms

6. By default, an **eGCLI** folder will be created in the **C** drive of the target host, and the **eGCLI.bat** file will be copied to this folder. You can change the location of the **eGCLI** folder by clicking on the **Browse** button in Figure 2.3 and specifying a different destination directory for the folder.

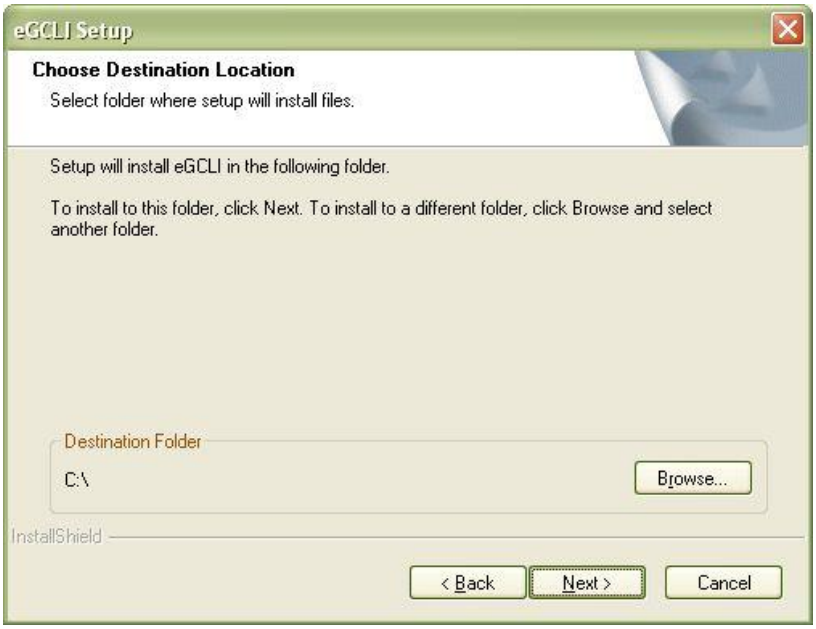

Figure 2.3: Specifying the install directory

7. Figure 2.4 that then appears provides you with a quick summary of your eGCLI specifications. Review the summary and click the **Next** button to proceed.

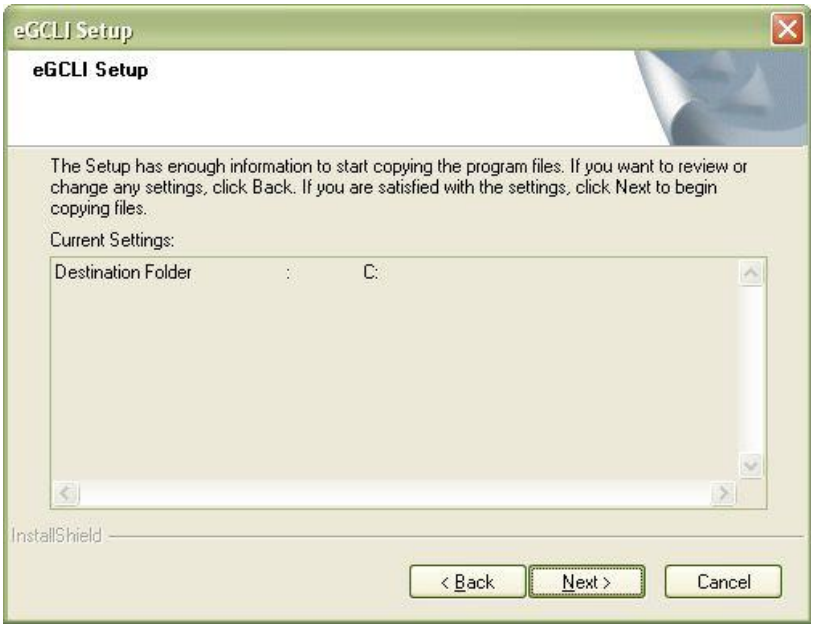

Figure 2.4: Summary of eGCLI specifications

8. When Figure 2.5 appears, click the **Finish** button to complete the setup.

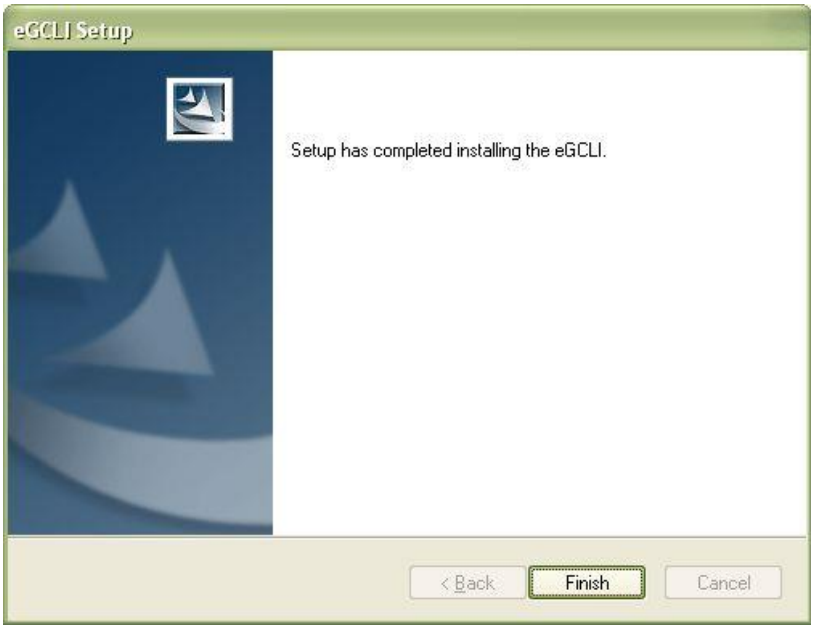

Figure 2.5: Completing the setup

Once the installation ends, an **eGCLI** folder will be created in the install directory indicated during setup to which all the CLI-related files will be copied. **No service is created for the eGCLI on the Windows box.**

2.4 Configuring Access to the eG Manager(s)

Once installed, the CLI should know which eG manager it needs to execute commands on. For this purpose, you need to configure a profile for the eG manager installation in your environment and assign a distinct manager ID to that manager. This is a 'one-time' activity and will not have to be repeated every time a command is executed via CLI.

In large environments where multiple eG managers may have been deployed, you may want to configure the CLI to communicate with a few/all the eG managers, so that the entire environment can be administered without using the eG web interface. To enable this, multiple manager profiles can be configured on the CLI with unique IDs for each manager. If need be, you can even create multiple profiles for the same manager, each with a different manager ID.

Also, to enable the CLI to login to the eG manager and perform administrative tasks on it, you have to configure the manager profile with the credentials of a user who is assigned the 'Admin' role on that manager.

The sub-sections below discuss how to create, modify, and delete the manager profiles.

2.4.1 Adding/Modifying/Deleting a Manager Profile on Unix Environments

2.4.1.1 Configuring a Manager Profile

To configure a manager profile on Unix environments, do the following:

1. Login to the eG CLI host.
2. Execute the following command from the **<EGCLI_INSTALL_DIR>/bin** directory: **./AddAccount**

3. Upon execution, the command will request you to provide the IP address and port number of the eG manager with which the eG CLI needs to communicate.

```
Add New Account
~~~~~~~~~~~~~~~
Please provide the eG Manager IP / Host name :192.168.10.157
Please provide the port number for the eG Manager [7077]:7077
```

4. Then, indicate whether the manager is SSL-enabled or not.

```
Is the eG Manager SSL enabled? (yes/no) [no]:no
```

5. To login to the eG manager for performing configuration tasks, the eG CLI requires the privileges of a user who is assigned the **Admin** role. Specify the name and password of such a user.

```
Please provide an admin user name for the eG Manager :admin
Please provide the password for the admin user :
```

6. Then, provide a unique manager ID using which the eG CLI commands will identify the eG manager that they need to communicate with.

```
The details you just provided will be saved in a profile on this system.
Please provide a Manager ID for this profile :eGMgr157
```

7. Once user registration is successful, the following message will appear:

```
**********************************************
User account has been registered successfully!
**********************************************
```

2.4.1.2 Modifying a Manager Profile

To modify a manager profile, issue the following command from the **<EG_INSTALL_DIR>/bin** directory of the eG CLI host: **./ModifyAccount -managerid <managerID>**

For instance, to modify the details of a manager with the ID mgr135, your command will be: **./ModifyAccount -managerid mgr135**

You can then proceed to modify the displayed details.

2.4.1.3 Deleting a Manager Profile

To delete a manager profile, issue the following command from the **<EG_INSTALL_DIR>/bin** directory of the eG CLI host: **./eGCLI DeleteAccount -managerid <Comma-separated list of manager IDs>**

For example:

eGCLI DeleteAccount -managerid mgr157,100mgr,125manager

2.4.1.4 Viewing Manager Profiles

To view all manager profiles, issue the following command from the **<EG_INSTALL_DIR>/bin** directory of the eG CLI host: **./eGCLI ShowAccounts**

2.4.2 Adding/Modifying/Deleting a Manager Profile on Windows Environments

2.4.2.1 Configuring a Manager Profile

To achieve the above, follow the steps given below:

1. Go to the command prompt of the orchestrator host.
2. Switch to the **<EGCLI_INSTALL_DIR>\bin** directory.
3. Issue the following command from the directory: **eGCLI AddAccount**
4. Figure 2.6 will then appear.

Figure 2.6: Adding a new manager account

5. Specify the following in Figure 2.6:
   - Enter the IP address of the eG manager with which the eG CLI should communicate in the **Manager IP/Hostname** text box. If need be, you can even provide the fully qualified host name of the eG manager in the **Manager IP/Hostname** text box.
   - Specify the **Port** at which the eG manager listens.
   - In order to perform administrative operations on the target manager, the eG CLI needs to access the manager as a user who is assigned the **Admin** role. Therefore, specify the credentials of such a user against the **Login ID** and **Password** text boxes.
   - If the eG CLI needs to connect to an SSL-enabled manager, set the **SSL Enabled** flag to **Yes**. To facilitate an HTTP connection instead, just set the **SSL Enabled** flag to **No**.
   - Assign a unique ID to the eG manager in the **Manager ID** text box.
   - Finally, click the **VALIDATE** button.

6. Similarly, multiple manager profiles can be registered with the eG CLI.

2.4.2.2 Modifying a Manager Profile

To modify a manager profile that pre-exists, do the following:

1. From the command prompt, execute the following command: **eGCLI ModifyAccount -managerid <ManagerID>**

   For instance, to modify the profile of the eG manager, mgr157 (manager ID), your command would be:

   eGCLI ModifyAccount -managerid mgr157

2. Figure 2.7 will then appear, displaying the details of the given manager.

Figure 2.7: Modifying a manager account

3. You can modify any of the displayed details and click the **VALIDATE** button to register the changes.

2.4.2.3 Viewing Manager Profiles

At any given point in time, you can even view the complete list of eG managers that have been registered with the eGCLI and their corresponding details. For this, issue the following command at the prompt:

eGCLI ShowAccounts

To view the details of a particular manager alone, your command would be:

eGCLI ShowAccounts -managerid <ManagerID>

For example, to view the details of the manager with the ID **mgr157**, the command would be:

eGCLI ShowAccounts -managerid mgr157

2.4.2.4 Deleting a Manager Profile

To delete one/more manager accounts, use the following command:

eGCLI DeleteAccount -managerid <Comma-separated list of manager IDs>

For example:

eGCLI DeleteAccount -managerid mgr157,100mgr,125manager

2.5 Uninstalling the eG CLI

To uninstall the eG CLI, do the following:

1. Login to the system hosting the eG CLI.
2. Follow the menu sequence: Start -> Programs -> eG Monitoring Suite -> eGCLI -> Uninstall eGCLI
3. Figure 2.8 will then appear. Pick the **Remove** option from Figure 2.8.

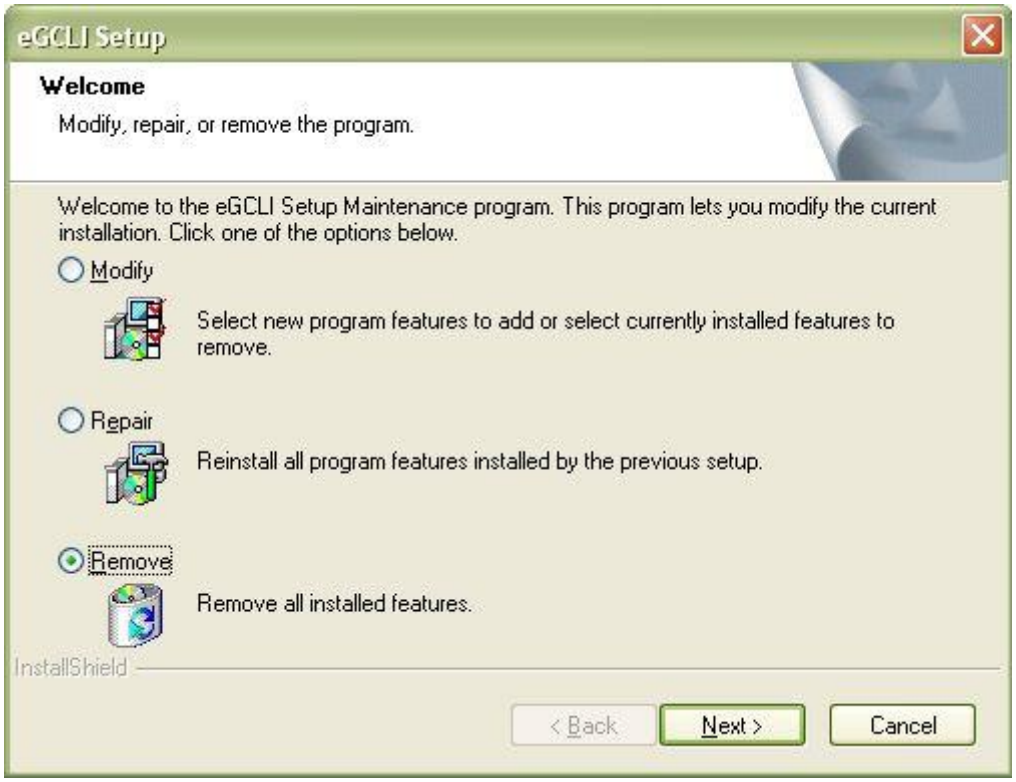

Figure 2.8: Select the Remove option

4. Figure 2.9 will then appear, prompting you to confirm whether/not the application is to be removed. Click the **Yes** button to confirm uninstallation.

Figure 2.9: Confirming uninstallation

5. This will trigger uninstallation.
6. Once the eG CLI is uninstalled successfully, a message to that effect will appear.

Chapter 3

Conclusions

This document clearly explained how to install and configure the eG CLI. To know about the eG CLI commands for automatically configuring the target infrastructure, and the commands for retrieving data from the eG backend, refer to the following documents:

- Automatically configuring the environment using the eG CLI
- Accessing performance data using the eG CLI.