

Installation Guide

Zend Platform V.2.1



By Zend Technologies Inc.

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Zend Platform Overview

Zend Platform is a complete runtime environment that manages all aspects of the PHP environment in a single, centralized location, including cluster management, performance management, monitoring, detection, recovery, and Java integration. Zend Platform dramatically improves both the end user experience and IT productivity by providing an integrated viewpoint into the PHP environment.

Understanding Zend Platform

Zend Platform sits between PHP, the Zend Engine, and the organization's PHP scripts, providing the platform on which Web services, business-to-commerce applications, content management, intranets and business-to-business applications are based.

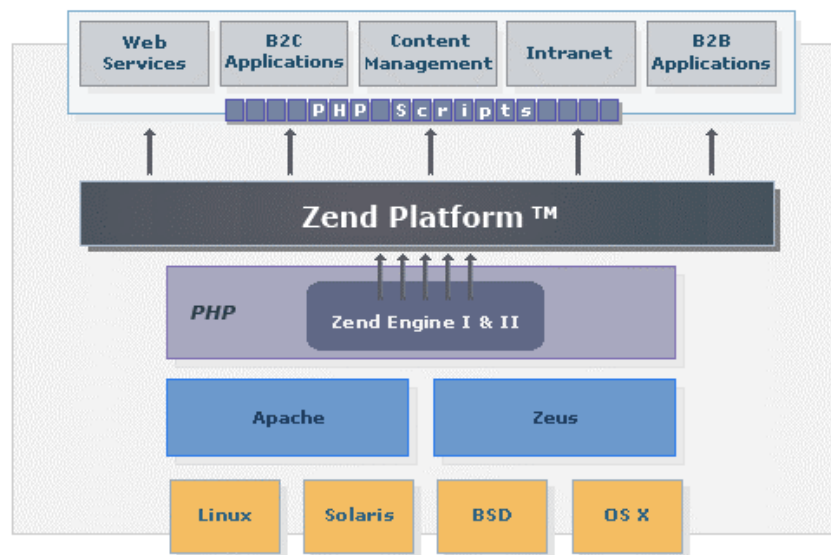


Figure: 1 - Zend Platform and the PHP-enabled Enterprise

Zend Platform is a central management tool for:

- **Configuration Management**— Platform's architecture provides full control of the PHP application platform, including performance management settings, event thresholds, etc. Platform allows the administrator to set up groups of multiple identical servers via:
 - Configuration of remote servers.
 - Cloning configuration from one server to another, or from one server to an entire group of servers.
- **Performance Management**— Platform is equipped with four performance management modules that can be used to track and improve the speed and responsiveness of Web applications. These include: Code Acceleration, Dynamic Content Caching, File Compression and Zend Download Server.

- **Monitoring, Detection and Recovery**— Platform features new technology that detects and recovers from crashes, whether they occur in PHP itself, the database software, or your own application. The integrated tools of monitoring, detection and recovery features allow users to drill down to critical issues and optimizations quickly and easily.
- **PHP/Java Integration**— The Platform PHP/Java Bridge allows companies who have investments in J2EE application servers to take advantage of PHP--the best Web-enablement language in the world. Alternatively, the Bridge allows PHP-centric companies to use J2EE services that are not present in scripting languages. Not limited to interactions strictly with J2EE and legacy systems, the Platform PHP/Java Bridge also provides the ability to interact with plain Java objects.

Zend Platform Components

Zend Platform consists of the following components that will be installed during the installation procedure:

- **Zend Central**
Zend Central is a “portal” to Zend products installed within the PHP-enabled network system. It provides the user a central management point to Zend products that are installed in the cluster, as well as a means to monitor the health and availability of the installed PHP applications. Zend Central allows the user to configure groups of servers, distribute configurations, as well as to see the status of the products that are installed on registered Zend Platform nodes.
- **Zend Monitor**
Zend Monitor is a PHP-centric monitoring tool that enables the user to rapidly pinpoint problems in their PHP applications and solve them before they escalate. The product shortens the process from development to testing and production. Zend Central also provides the user with enough information about the PHP support environment’s health and availability so the user can spot issues outside of PHP—such as system load and execution performance problems. Platform includes a variety of screens and views that enable the user to identify issues in their clusters—both in broad perspective and in detail.
- **Platform ’s Performance Module**
Platform ’s Performance Module is a complete performance management solution for delivering PHP-based dynamic content cost-effectively. Performance is based on Zend’s state-of-the-art Dynamic Content Caching, Code Acceleration and File Compression technologies. It is a single solution that helps improve the number of customers your server will be able to handle.
- **Java Binary Interface**
The Java Binary Interface enables programmers to write PHP scripts that can communicate with the Java API and any Java application that has an open API.

About Zend Platform Installation

Zend Platform has two installation modes, one for the Cluster Manager and one for the Nodes that make up the cluster. The two installation modes are explained below:

- Cluster Manager/Standalone Zend Platform Server**— Zend Platform's Standalone Cluster Server is installed on a Web server. This is the server that will receive Event Reports from the Nodes. It is front-ended by a Management Station from which the system administrator performs all management related tasks, as well as Alert handling. When you install Zend Platform, you must install the Cluster Manager first since the identity of this server defines the reporting destination for Zend Monitor instances on the Nodes.
- Zend Platform Node**—after you install the Cluster Manager/Standalone Zend Platform Server, you can begin installing Zend Platform on the server Nodes. This is the second installation mode described in this Installation Guide. This installation's purpose is to create a reporting entity that pushes Event and performance information to the Cluster Manager installed earlier in the installation procedure.

The system diagram below shows you Zend Platform's multi-node configuration. For a detailed explanation of the system diagram, please refer to the Zend Platform User Guide.

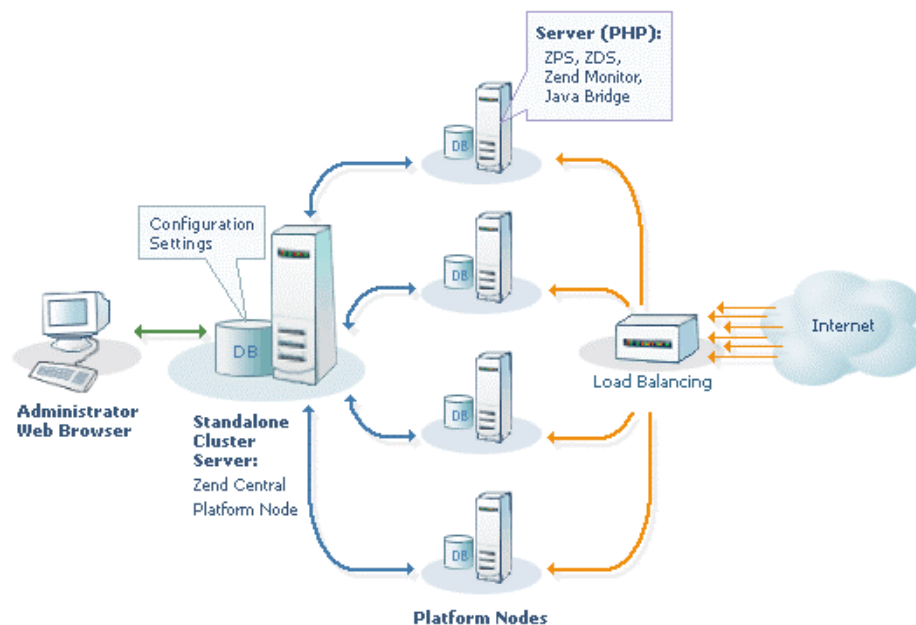


Figure: 2 - Zend Platform System

The system diagram illustrates the following points and guidelines for proper installation of Zend Platform:

- The system described here shows four Nodes registered to one Zend Platform Central server in a *multi-node configuration*. (Platform can also be installed in *standalone mode*, where Platform Central and a Node are installed on the same server. This installation is not illustrated.)
- Zend Platform's Standalone Cluster Server is always installed on a Web server. The System Administrator controls all Platform Central functions from a normal workstation using a standard Web Browser. It is good practice to create a dedicated Platform Server—as shown in the System Diagram.
- Zend Platform Nodes are discrete installations of Platform that include instances of Zend Monitor and Platform's Performance module.
- Nodes host resident PHP-based services that fill requests from the Web, as well as an instance of Zend Monitor and Platform Performance. Node installation therefore serves to place two key components on the individual Nodes for gathering and reporting Event and Performance information about the PHP-based service on the Node. This information is reported to the Standalone Cluster Server.
- When operating properly, configuration settings for each Node (i.e. which events to monitor, which actions to take, system-level configuration settings, etc.) are configured individually for each Node from the Management Station. The system administrator can also clone settings from any Node and distribute them to other Nodes throughout the system. These settings are stored in the Configuration Settings database on the Platform Central.

Note:

Because Platform Server and Platform nodes are separate entities, it is important that firewall and security devices be configured to allow communication between the nodes and the Platform Server. Identify which ports are being used, if necessary - open these ports on your firewall. By default the collector runs under Port 10010. You can change the port in the `php-embed.ini` (`zend_monitor.collector_port` directive). But, if you do, you must also update each node so that its port is set for the new collector port (that is, the same directive in each node's `php.ini` file).

Prerequisites

Before installing Zend Platform make sure that you run the Phpinfo analytical script to verify compatibility

Run phpinfo to View PHP Configuration Information

As a rule, to run properly Zend Platform requires that certain settings of PHP be active. To get this information you should run the **phpinfo** script, which displays a table with the PHP configuration information for the server on which it runs. The table includes information about PHP compilation options PHP compilation extensions, PHP version, server information and environment (if compiled as a module), the PHP environment, OS version information, paths, master values of configuration options, local values of configuration options, HTTP headers, and the PHP License.

The phpinfo script is as follows:

```
<?php
phpinfo();
?>
```

Note:

phpinfo contains sensitive information about your system, therefore access to this script should be restricted. Common precautions that you can take include: (1) making sure you close your browser after running the phpinfo () script, or (2) making sure you do not give users permission to view phpinfo().

There are two additional short procedures that should be run if you encounter shared memory problems:

- Shared Memory
- Enable/Disable Memory Limit

Shared Memory Configuration for Zend Platform

By default Platform does not use shared-memory for most Operating Systems. The information in the following section should only be used when encountering problems with shared memory.

In certain cases, the default memory settings of some operating systems may not allow Zend Platform to allocate enough shared memory, thus disabling its ability to function. Use the recommendations in this section to maximize the efficiency of Zend Platform when necessary.

Platform tries to allocate shared memory segments to accommodate the memory size defined in the control panel (**Accelerator Memory**). The default memory consumption is 32MB. Some operating systems (namely, certain versions of Solaris and FreeBSD) cannot offer that much shared memory in their default configuration, and have to be tuned. The tuning process is typically easy—nevertheless, the system

administrator should undertake the recommendations in this section.

Here are the configuration values that Platform depends on:

- Maximum size of a single shared memory segment (**SHMMAX**). The recommended value is at least 16MB.
- Maximum number of shared memory segments (**SHMMNI**).
- Maximum number of attached shared memory segments per process (**SHMSEG**).

Note:

Your system should be configured so that **SHMMAX*SHMMNI** is greater than the Platform consumption (**Accelerator Memory**). Since other applications may also make use of shared memory, it is recommended to configure your system to allow more shared memory than the amount used by the Platform. Increasing **SHMMNI** does not noticeably degrade system performance. You must also ensure that **SHMSEG** is set so that **SHMMAX*SHMSEG** is also greater than the **Accelerator Memory**. Since Apache itself also uses shared memory and will be sharing the **SHMSEG** segments with Platform, an even higher setting is recommended.

Warning:

If you plan on using Apache's *apachectl graceful* command to restart your Apache Web server, be sure to double the amount of allocated shared memory that you would otherwise expect to use. *apachectl graceful* leaves active processes running when the server is restarted, and temporarily allocates shared memory while validating the new configuration. When the new configuration has been validated, this temporarily allocated memory is released.

Configuration under Linux

Linux installations require no additional configuration for using the Platform Performance. Their default configuration allows for enough shared memory and semaphore structures.

Configuration under FreeBSD

By default, FreeBSD usually has too little shared memory available for the Zend Accelerator to be effective (maximum segment size and segments per process depend on the setup).

For optimal performance of the Zend Accelerator on FreeBSD 4.x and 5.x, consider placing the following entries in `/etc/sysctl.conf`

```
kern.ipc.shmmax=67108864
kern.ipc.shmmni=200
kern.ipc.shmseg=20
kern.ipc.semact=65536
```

Note:

Please reboot the server for the changes to take effect.

Configuration under Solaris

By default, Solaris defines the maximum-shared segment size to 1MB, which is insufficient for the Zend Accelerator's memory requirements. For optimal Zend Accelerator performance, the following settings are recommended for the file `/etc/system`:

```
set shmsys: shminfo_shmmax = 67108864
set shmsys: shminfo_shmmni = 200
set shmsys: shminfo_shmseg = 20
```

Managing Shared Memory in Platform (New Method)

The Zend Platform module's shared memory routines are now modularized. This means that there is now more than one way that Platform works with shared memory.

Currently, there are three shared memory models:

- shm (using System V `shmget`)
- posix (using POSIX `shm_open`)
- mmap (using `mmap`)

Zend Platform users can set `zend_accelerator.preferred_memory_model` to one of the values mentioned above. This has the effect of changing the order in which shared memory is allocated to an order other than the default order. If the user has specified a model, Platform tries this model first.

Enable/Disable Memory Limit in PHP ver.4.3.8

Platform uses the `memory_limit` function to monitor memory usage in scripts. Depending on which version of PHP you are running, you may or may not be able to use the `memory_limit` option safely. This is the function that applies memory limit support to the application at the time it is compiled.

There are three recommendations:

- PHP (earlier than version 4.3.8) — You may not safely enable `memory_limit` during compilation.
- PHP (version 4.3.8) — There is a well documented security hole in PHP v. 4.3.7 and earlier that makes it possible for a remote attacker to execute arbitrary code on remote PHP servers. Therefore, if you wish to use `memory_limit`—which is essential to Zend Platform monitoring functions—upgrade to version 4.3.8 or later.
- PHP (later than version 4.3.8) — The above-mentioned bug has been fixed. You can safely enable `memory_limit` during compilation.

Installing Zend Platform

Preparing to Install Zend Platform Standalone and Nodes

The following instructions are relevant for Zend Platform Standalone and Zend Platform Node installations. These instructions should be followed running the Zend Platform installation:

To install the Zend Platform under UNIX (Linux, Solaris, and FreeBSD), follow these steps:

1. If you have not previously done so, build a supported version¹ of PHP in non-debug mode (the default).
You can ensure that PHP is built in non-debug mode by adding: `--disable-debug` to the PHP configure line. Otherwise, Zend Platform will not load.

2. To unpack Zend Platform, run the command:

```
gunzip -c <package name> | tar xvf -
```

The unzipped files will be placed in a directory with the same name as the package, without the archive suffix (i.e. `.tar.gz`).

Note:

Zend Platform comes with two terminal-based installation scripts. The Text UI (TUI) dialog-based script is described in detail below. A similar TTY-based script is also provided for terminal-based systems that do not support the graphics capability of the TUI installation dialog boxes.

¹ Go to our System Requirements online to see an updated list of supported PHP versions (<http://www.zend.com/store/products/zend-platform/system-requirements.php>)

Zend Platform Standalone Installation

To Install Zend Platform Standalone:

1. Type the following command in the installation directory: `./install` to run the Installation script and follow the instructions.



Figure: 3 - Installation Welcome Screen

Note

For compatibility issues refer to the Zend Platform compatibility table at http://www.zend.com/store/products/product_compatibility.php.

2. Select **OK** and press **Enter** to continue.
The License Agreement follows the Welcome message.

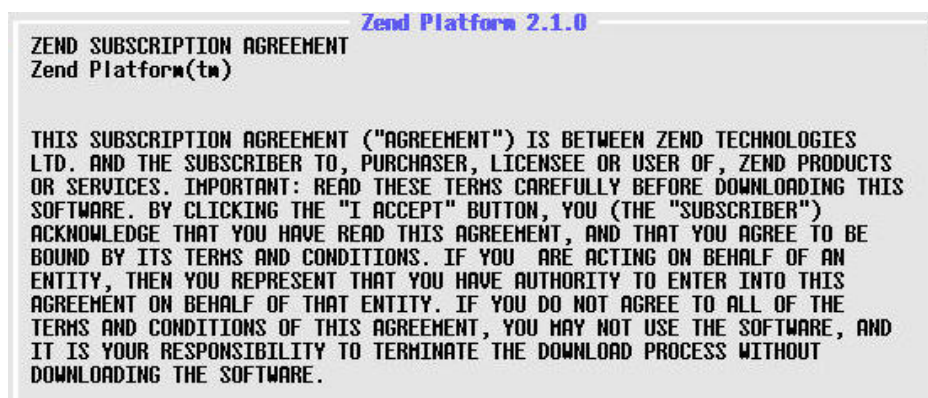


Figure: 4 - License Agreement

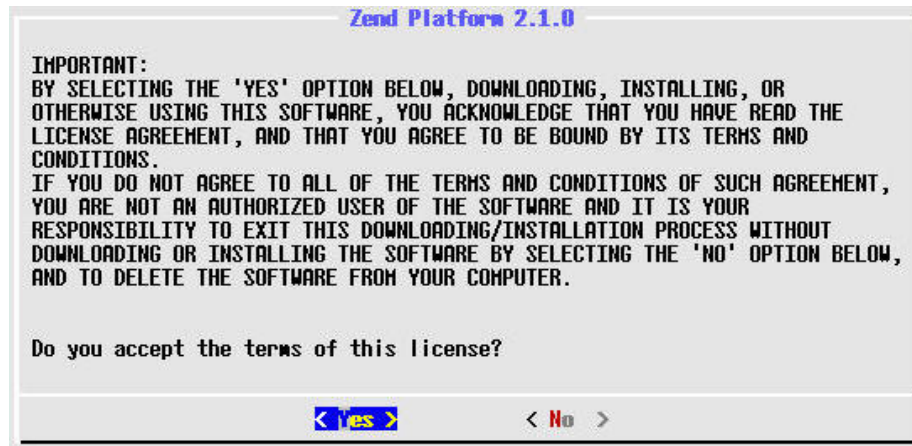


Figure: 5 - License Acceptance

3. Select **Yes** to accept the terms of the license agreement; alternatively, select **No** to exit the installation procedure. The Confirm Location of php.ini File dialog box opens.



Figure: 6 - Confirm Location of php.ini File

4. Confirm the location of your php.ini file and select **OK**. The list of installation methods selection box appears onscreen.



Figure: 7 - Choose Installation Method

5. Choose Cluster Manager/Standalone Zend Platform Server and select **OK**.

Session Clustering



Figure: 8 - Setup Session Clustering

6. Setup the Session Clustering module.
 - Choose Yes to setup Session Clustering in the installation process.
 - Choose No if you do not want to setup session clustering or if you wish to setup session clustering at a later time.

Note:

To setup Session Clustering after installation run:

```
/usr/local/Zend/bin/sc-enable.sh
```

7. The Specify Path to Apache control utility dialog box opens.



Figure: 9 - Specify Path to Apache Control Utility

The installer will now run a check to identify the PHP type.

8. If the displayed PHP type is correct press Yes to confirm the selection.
If the PHP type is different, press No to be sent to the manual PHP type selection screen.



Figure: 10 - Specify PHP Type

9. The next step is to select a valid license file. There are two options for selecting a license file:
 - Select the first option to download from www.zend.com.
 - Select the second option to use an existing license file.



Figure: 11 - Product Registration

10. Choosing option 2: Search for license file on my disk, adds an additional screen to the installation. Specify the path to the license file and press OK.



Figure: 12 - License File Location

11. The next screen is the Installation Path dialog.



Figure: 13 - Specify Location

12. Specify the target directory for Zend Platform and select OK. Press Enter to continue and open the Apache document root directory dialog opens. If there are several document roots the screen will display a list. If there is only one document root it will be displayed in an editable field for confirmation as seen in the image below:

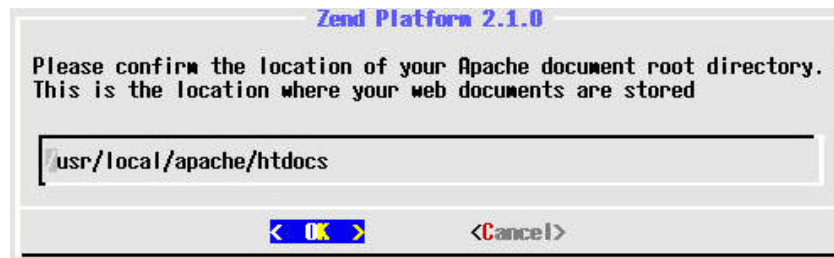


Figure: 14 - Select Apache Document Root Directory

13. Specify the location of the Apache document root directory and select **OK** to open the GUI installation path dialog.

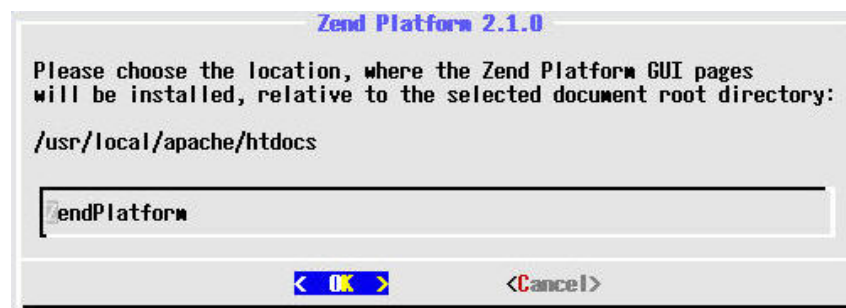


Figure: 15 - GUI Installation Path

14. Specify the location for the Zend Platform GUI files and select OK. The Apache Username dialog opens.



Figure: 16 - Apache Username

15. Verify that the username is correct and select OK. A progress screen opens indicating that the GUI/Client is installing. After the GUI/Client installation is completed, the Cache Storage Directory dialog opens.

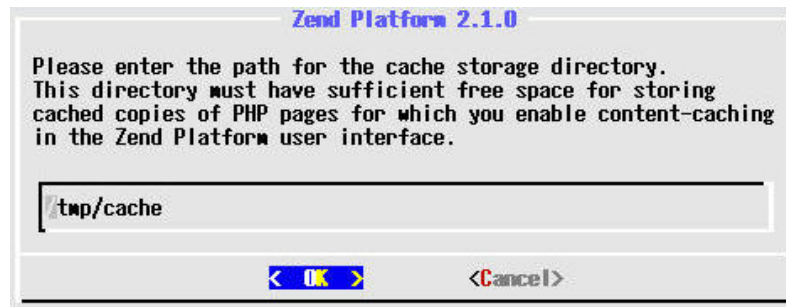


Figure: 17 - Cache Storage Directory

16. Specify a storage location that will be used by Zend Platform's Content Caching feature to store cached copies of PHP pages and select OK. The Configuration Changes dialog opens.

Note:

Make sure the directory has sufficient free space suitable for your Caching needs.



Figure: 18 - Configuration Changes

17. This dialog displays a list of the different configuration changes that the Zend Platform Installation has done on the server. Select OK to continue. The Java Bridge Detection dialog opens.

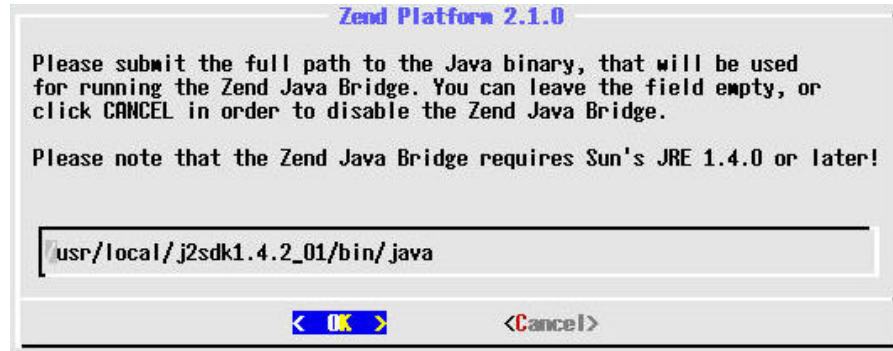


Figure: 19 - Java Bridge Detection

18. In the Java Bridge Detection dialog box, enter the full path to the Java binary that will be used for running the Zend Java Bridge. Select OK to continue.



Figure: 20 - Confirm Path to HTDOCS

19. Specify the path to htdocs that corresponds with the document root and press ok to continue.

Configuring Session Clustering

The following steps of the installation process are Session Clustering configuration screens. These screens are the same for setting-up Session Clustering using `sc-enable.sh` after installation.



Figure: 21 - SC, How Many Processors?

20. Specify how many processors will be sharing session information in the cluster.



Figure: 22 - Storage Type

21. Choose a storage type for storing session information on the Cluster nodes as follows:
 - Memory does not require any additional information to install Session clustering – Select the Memory storage type and press OK to continue the installation.
 - Choosing, Hard Disk adds two additional screens the first to specify the amount of memory allocated for storing session information and the second for selecting a storage method See: [Session Clustering Storage Models](#).



Figure: 23 - Cache Session Storage Space

22. Specify how much storage space you are willing to allocate for storing session information.

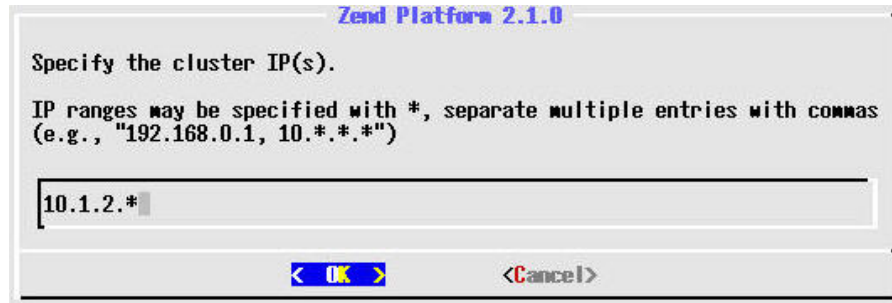


Figure: 24 - IP Range

23. Use mask ids (*) to specify IP ranges and commas to denominate single IPs. Make sure to specify all the IPs included in the cluster.



Figure: 25 - Storage Model

24. Choose one of the Storage Models for storing Session Information.

Note:

Select write through for mission critical information and delayed write for enhanced performance. For more information, go to the Zend Platform User Guide.



Figure: 26 - GUI Password

25. Specify a password for using the Zend Platform GUI and verify your selection.

Note:

Passwords may contain, between 4-16 characters including the following:

- Alphanumeric characters 'a' through 'z', 'A' through 'Z' and '0' through '9'
- Special characters (-) dash, (_) underscore and (.) period.

26. Confirm the password and Select OK.



Figure: 27 - Cookie Domain

Note:

This dialog only appears when the installer could not find a cookie domain in the php.ini. The cookie domain specified in this dialog will be subsequently added to the php.ini in the installation process.

This completes the Session clustering setup screens all subsequent screens are for setting up Zend Platform entirely.

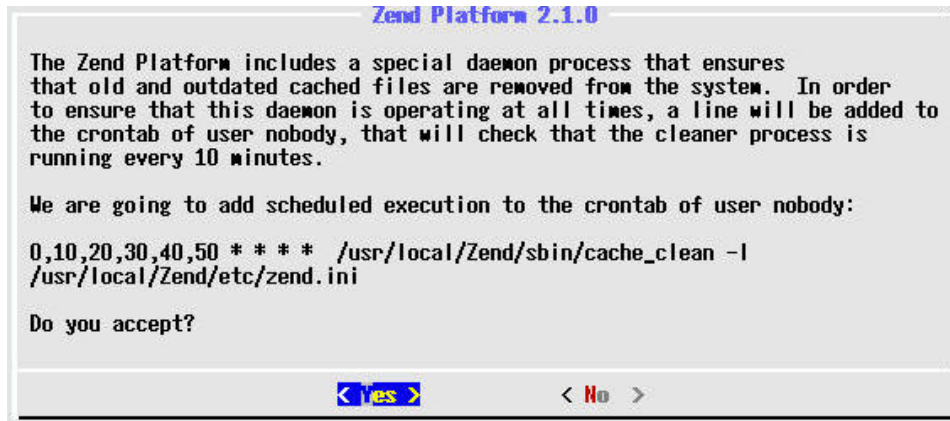


Figure: 28 - Clean Old Cached Files

27. In the “Cleaner Process: configuration screen select **Yes** and press **Enter** to add a line to the user’s crontab file that will remove outdated cache files from the system.

Note:

The cleaner process—by default—runs every 10 minutes.

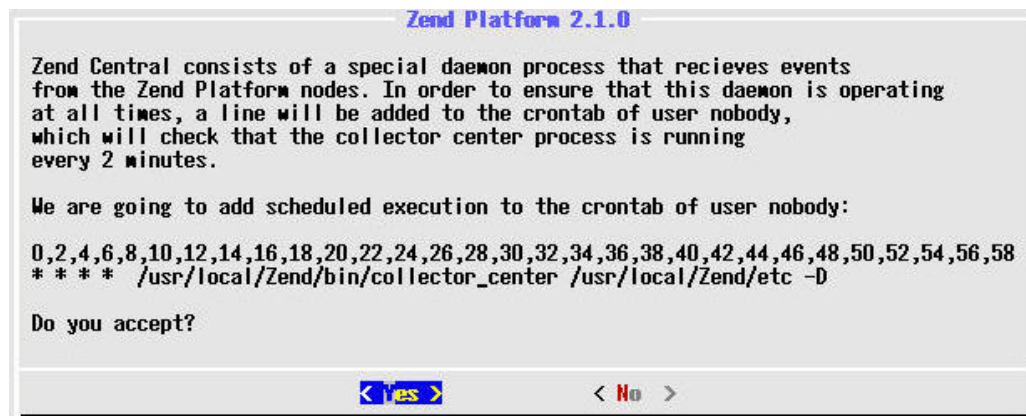


Figure: 29 - Collector Center Process

28. In the Zend Platform “collector process” configuration screen select **Yes** to add a line to the user’s crontab file that will insure that Zend Central’s event collector process is operating at all times. The Restart Web Server screen opens.

Note:

The collector process—by default—runs every 2 minutes.



Figure: 30 - Restart Web Server

29. Select **Yes** to immediately restart the web server. A notification will appear once the Web Server has been successfully restarted.

The next dialog is the Installation Summary. This dialog lists the Zend components that were installed on the server and their status. If one or more of the components show the status Failed, please run the Support Tool ²after completing the installation.



Figure: 31 - Post Installation Summary

30. Select **OK** to continue. The installation displays a completion notification with an URL for accessing the Zend Platform GUI.

² See chapter - Support Tool.


```
*****

The installation has completed successfully. Zend Platform is now ready
for use. Please refer to the Zend Platform User Guide, for more on
configuring Zend Platform.

You can access the Zend Platform's User Interface using the URL:
http://gibraltar/ZendPlatform/

*****
```

Figure: 32 - User Interface URL

Zend Platform Node Installation

Once Zend Platform's Central Server is installed, the Zend Platform node installation can be installed on each server that should perform as a node. Nodes are servers that host Zend products and handle requests directed to them by the load balancing entity. Each Node has to be installed separately. However, once the connection between the central server and nodes is established configurations to all nodes will be done directly through the central server's user interface.

Note:

Single server environments only require the Central server installation.

To Install Zend Platform:

1. Type the following command in the installation directory: `./install` to run the Installation script and follow the instructions.



Figure: 33 - Installation Welcome Screen

2. Select OK to continue. The License Agreement follows the Welcome message.

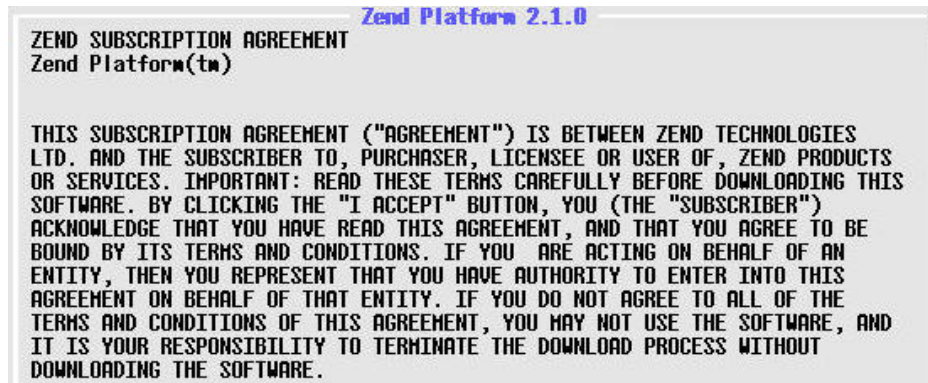


Figure: 34 - License Agreement



Figure: 35 - License Acceptance

3. Select **Yes** to accept the terms of the license agreement; alternatively, click **No** to exit the installation procedure.
The php.ini file dialog box opens.



Figure: 36 - Confirm Location of php.ini File

4. Select **OK**.
The List of Installation Methods selection box appears onscreen.



Figure: 37 - Choose Installation Method

5. Choose the second option - Cluster Node, and press **OK** to continue.



Figure: 38 - Setup Session Clustering

6. Setup the Session Clustering module.
 - Choose Yes to setup Session Clustering in the installation process.
 - Choose No if you do not want to setup session clustering or if you wish to setup session clustering at a later time.

Note:

To setup Session Clustering after installation run:

```
/usr/local/Zend/bin/sc-enable.sh
```



Figure: 39 - Specify Path to Apache Control Utility

7. Specify the full path to the Apache control utility and select **OK**.



Figure: 40 - Determining PHP Type

8. Confirm the version of PHP currently installed on the node. If the PHP type is different, press No to be sent to the manual PHP type selection screen.



Figure: 41 - Specify Location

9. Specify the installation path for installing Platform.

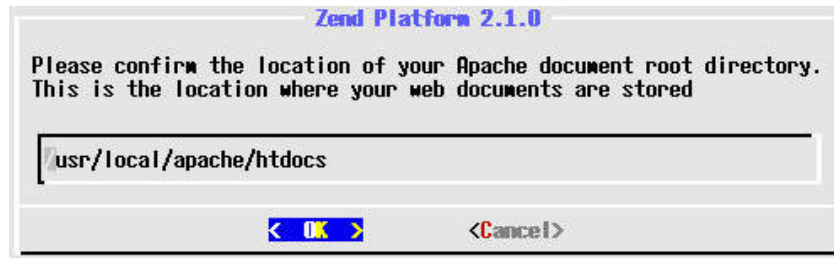


Figure: 42 - Select Apache Document Root Directory

10. Specify the location of the Apache document root directory and select **OK**.

A progress screen opens indicating that the GUI/Client is installing. Immediately following, the Enter Current GUI Install Location dialog opens.

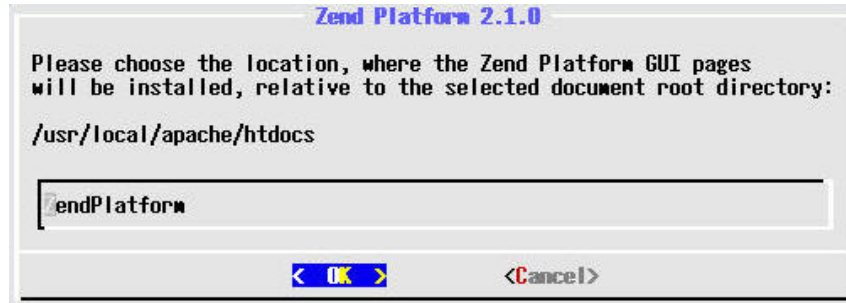


Figure: 43 - GUI Installation Path

11. Specify the location for the Zend Platform GUI files and select OK. The Apache Username dialog opens.

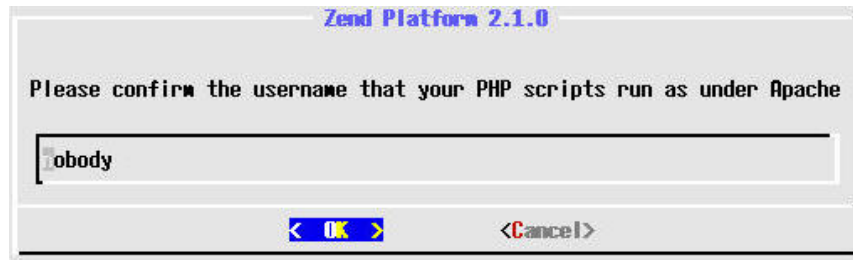


Figure: 44 - Apache Username

12. Verify that the username is correct and select OK. The Cache Storage Directory dialog opens.

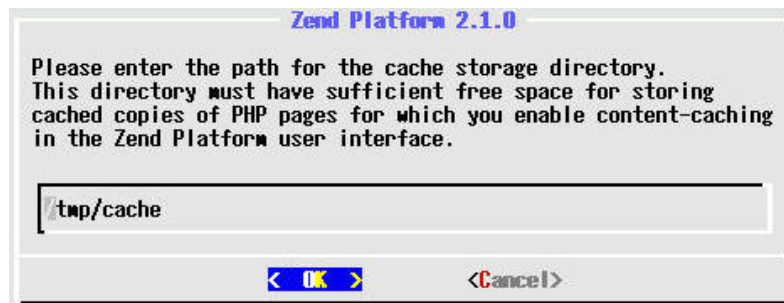


Figure: 45 - Cache Storage Directory

13. Specify a storage location that will be used by Zend Platform's Content Caching feature to store cached copies of PHP pages and select OK. The Configuration Changes dialog opens.

Note:

Make sure that the directory has sufficient free space suitable for your Caching needs.



Figure: 46 - Configuration Changes

14. This dialog displays a list of the different configuration changes that the Zend Platform Installation has done on the server. Select OK to continue. The Java Bridge Detection dialog opens.

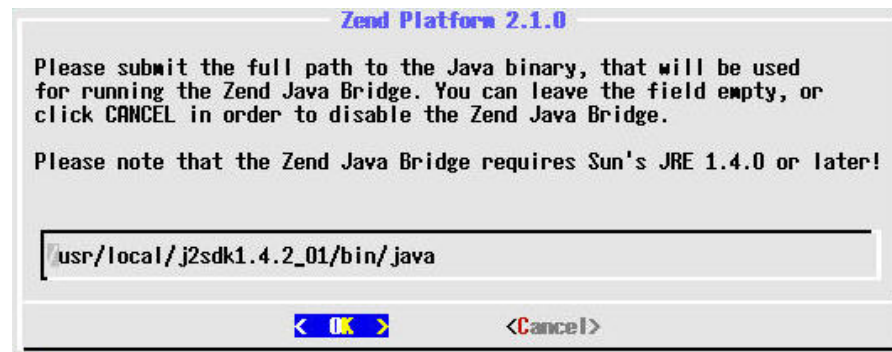


Figure: 47 - Java Bridge Detection

15. In the Java Bridge Detection dialog box, enter the full path to the Java binary that will be used for running the Zend Java Bridge. Select OK to continue. The Node Registration dialog opens.
16. Enter a Server Name or IP Address to Zend Central, a Password, an Alias for the Node and select **OK**.

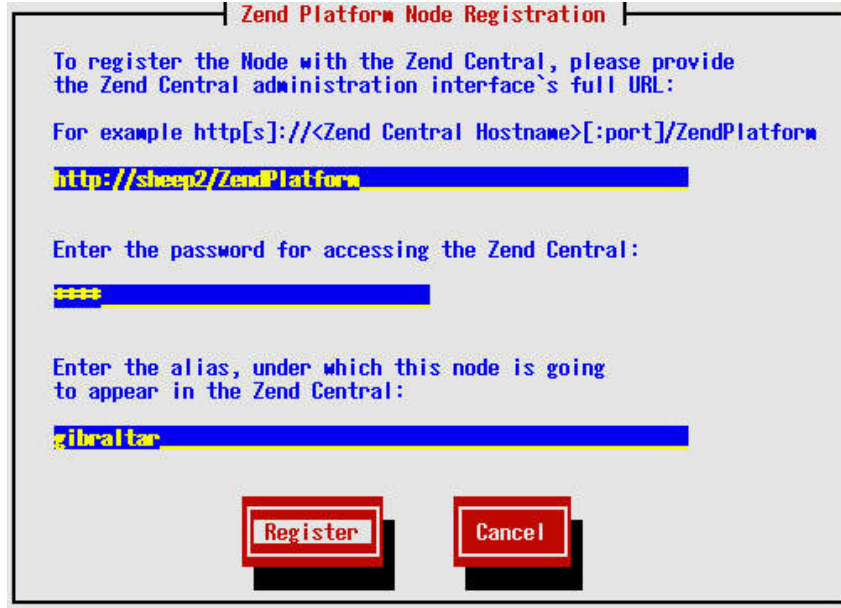


Figure: 48 - Node Registration Dialog



Figure: 49 - Confirm Path to HTDOCS

17. Specify the path to htdocs that corresponds with the document root and press ok to continue.

Configuring Session Clustering

The following steps of the installation process are Session Clustering configuration screens. These screens are the same for setting-up Session Clustering using `sc-enable.sh` after installation.



Figure: 50 - SC, How Many Processors?

18. Specify how many processors will be sharing session information in the cluster.



Figure: 51 - Storage Type

19. Choose a storage type for storing session information on the Cluster nodes as follows:
- Memory does not require any additional information to install Session clustering – Select the Memory storage type and press OK to continue the installation.
 - Choosing, Hard Disk adds two additional screens the first to specify the amount of memory allocated for storing session information and the second for selecting a storage method See: [Session Clustering Storage Models](#).



Figure: 52 - Cache Session Storage Space

20. Specify how much storage space you are willing to allocate for storing session information.



Figure: 53 - IP Range

21. Use mask ids (*) to specify IP ranges and commas to denominate single IPs. Make sure to specify all the IPs included in the cluster.



Figure: 54 - Storage Model

22. Choose one of the Storage Models for storing Session Information.

Note:

Select write through for mission critical information and delayed write for enhanced performance. For more information, go to the Zend Platform User Guide.



Figure: 55 - Cookie Domain

Note:

This dialog only appears when the installer could not find a cookie domain in the php.ini. The cookie domain specified in this dialog will be subsequently added to the php.ini in the installation process.

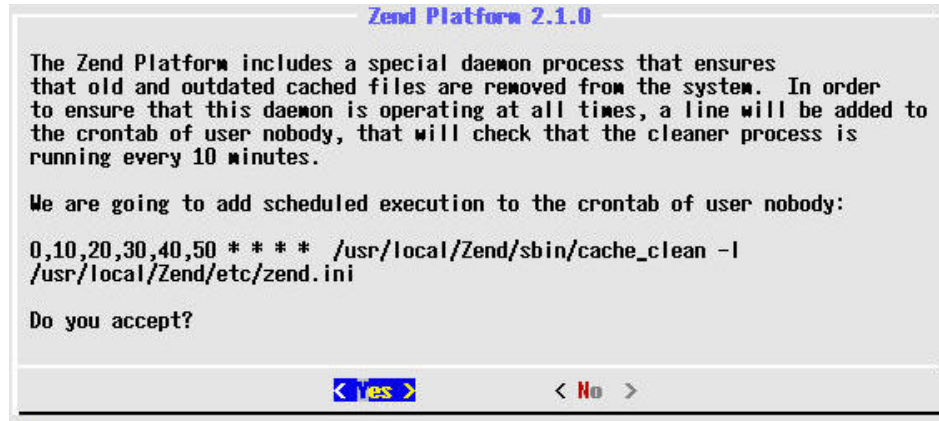


Figure: 56 - Clean Old Cached Files

23. In the Zend Platform “collector process” configuration screen Select Yes and press Enter to add a line to the user’s crontab file that will remove outdated cache files from the system. The Restart Web Server screen opens.



Figure: 57 - Restart Web Server

24. Select **Yes** to immediately restart the web server. A notification will appear once the Web Server has been successfully restarted.

The next dialog is the Installation Summary. This dialog lists the Zend components that were installed on the server and their status. If one or more of the components show the status Failed, please run the Support Tool ³after completing the installation.

³ Go to the next section to read about the Support Tool.



Figure: 58 - Post Installation Summary

25. Select **OK** to continue. The installation displays a completion notification with an URL for accessing the Zend Platform GUI.

```
*****
The installation has completed successfully. Zend Platform is now ready
for use. Please refer to the Zend Platform User Guide, for more on
configuring Zend Platform.

You can re-register the Zend Platform node manually, using the shell script:
/usr/local/Zend/bin/register_node.sh
You can modify your Zend Platform Node settings from the Zend Central
administration interface using the URL:

http://gibraltar-freebsd54/ZendPlatform/
*****
```

Figure: 59 - User Interface URL

Support Tool

The Zend Support Tool gathers server configurations and setup information. This is used to aid in the support process to troubleshoot support issues and provide comprehensive and efficient support.

The information collected is as follows:

- File system info (output from command 'df -a')
- System information (output from command 'uname -a')
- CPU information (output from 'cat /proc/cpuinfo')
- OS version information (output from 'cat /proc/version')
- GLIBC version
- Process table (output from command 'ps -ef/ax')
- IPC facilities information
- List of all open files (output from command: 'lsof')
- List of open locks (output from command: 'lslk')
- List of open connections (output from command: 'netstat -a')
- Information about OS version /etc/*release*, /etc/*version*
- Kernel parameters (output from command 'sysctl -a')
- Zend logs directory
- Installation configuration database (conf.db)
- Directory containing Zend Monitor log files
- Zend Platform Server keys
- Zend Platform Collector keys
- Zend Download Server logfile (last 1MB of lines)
- Full listing of the installation prefix (output from command: 'ls -lR /usr/local/Zend')
- Permissions of /tmp directory (output from command: 'ls -l /tmp')
- List of SELinux permissions of the installation (output from command: 'ls -lRZ')
- Contents of PHP configuration file
- Contents of Zend configuration file
- Contents of Zend collector center configuration file (php_embed.ini)
- Installed Zend products and versions (pack.ini)
- PHP binary info (output from command 'nm libphp4.so')
- PHP binary info (output from command 'objdump libphp4.so')
- phpinfo()
- Apache configuration file (containing all includes)
- Apache binary info (output from command 'nm httpd')
- Apache binary info (output from command 'objdump httpd')
- Apache error log (last 1MB of lines)
- Apache compile settings (Output from command 'httpd -V')
- Apache control utility (Original path: /path/to/apachectl)
- Java version (output from command 'java -version')

Use the support tool wizard to create, gather and send information regarding your Server's configuration and setup.

The information collected by the Support Tool can be stored and distributed in several ways:

1. Submit a ticket to Zend.com support
2. Collect information and save it in an archive
3. Collect information and send it by e-mail

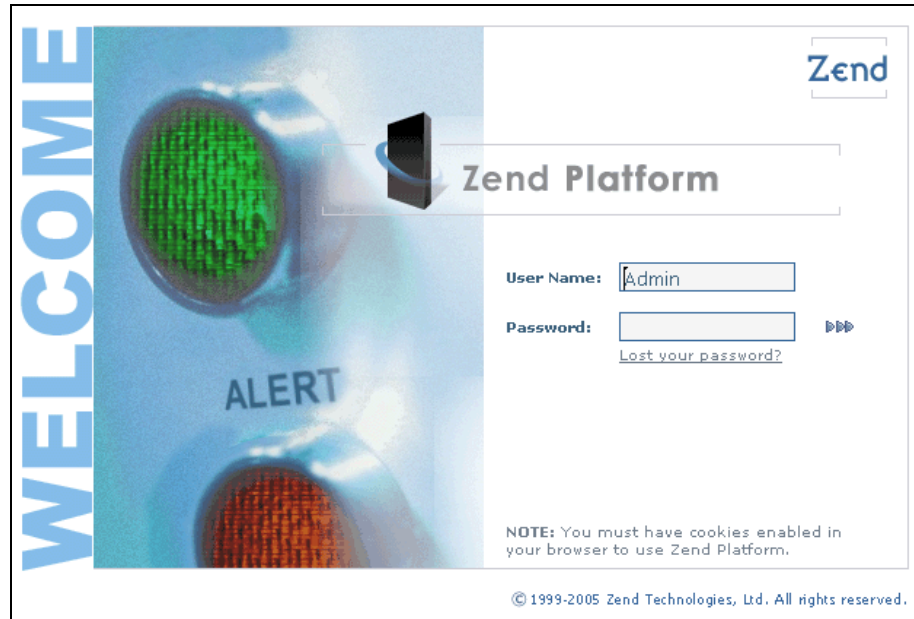
The support tool is accessed from the GUI by going to:


Zend Central | Console | Configure & Management Tools | Support Tool

In case of problems during Installation or later on when using the GUI, the Support Tool can be run from: `/usr/local/<Installation_dir>/bin/support_tool.sh`.

Starting Zend Platform

1. To access Zend Platform, go to
`http://<your-host>:<port>/ZendPlatform/`



2. Type your zend.com password to login and click . Use the same password that you used during the installation.

Recommendation:

For security measures, we recommend that you create a new password for the Zend Platform GUI rather than using your `zend.com` account. Refer to the section “Changing the GUI Password”.

Upgrading Zend Platform

Zend Platform is designed to support the widest range of upgrade scenarios. This section describes the upgrade recommendations for systems that incorporate Zend products in various configurations.

Note:

When upgrading from a previous version of platform to a later version make sure to upgrade all the nodes and central server.

Before upgrading Zend Platform make sure the Central server is the same version as the node (with the highest version).

The table below describes three upgrade scenarios. Please contact Zend Support⁴ if you are upgrading from a version that is not included in this list:

System Scenario	Upgrade Method	Outcomes
Central Platform 1.1.x Node/s Platform 1.1.x	Upgrading the Central with 'import' method Note: Upgrade your Central <u>before</u> installing/upgrading any of the nodes!	You must reinstall all nodes after upgrading the Central.
Central Platform 1.1.x Node/s Platform 1.1.x	Upgrading the Central with 'fresh installation' method	
ZPS 4.x.x	ZPS to Platform Central	Upgrade should create no problems. Registration to Central will work properly. The system should function properly afterward. Specifically, the GUI will load and will function within the limits of your license agreement.

Note:

⁴ Contact support at: http://www.zend.com/support/support_platform.php

Currently, Platform recognizes 3 licenses:

zend_platform.zl – activates all functions, including monitoring.

zend_canaveral.zl – activates all functions, including monitoring.

zend_performance_suite.zl – activates acceleration, caching and output caching only (according to the specific license which was purchased)."

Changing the GUI Password

For security measures, we recommend that you create a new password for the Zend Platform GUI rather than using your `zend.com` account. Refer to the section “Changing the GUI Password”.

To create a new password:

1. Login as root. (In order to run the utility for changing the GUI password, you must be logged in as root.)
2. Find the script for changing the GUI password in:

```
<installation_dir>/bin/change_zend_gui_password.sh
```

3. Run the following command:

```
./change_zend_gui_password.sh
```

4. When the utility prompts for the new password, enter a new password.
5. When the utility prompts for confirmation, confirm the new password.
Upon successful confirmation, the utility replaces the GUI password in the `php.ini` file, and also in Platform’s password database:

```
<inst.dir>/etc/ZendPlatform/dbs/zc_users.db)
```

Uninstall

The following instructions describe the actions that need to be done to uninstall Zend Platform.

Before removing or commenting files stop the following processes:

1. Stop Apache
2. Stop the SC daemon: `/usr/local/Zend/bin/scd.sh stop`
3. Stop the MySQL database: `/usr/local/Zend/MySQL/bin/mysql.sh stop`
4. Stop the Java Bridge server: `/usr/local/Zend/bin/javamw.rc stop`
5. Clean the Apache user crontab.
6. Kill the collector_center and cache_clean processes:
 - a. Find the collector_center process's PID, then: `kill -TERM $PID`
 - b. Find the cache_clean process's PID, then: `kill -TERM $PID`
7. Restore your previous PHP.ini:
 - a. Remove the symlink from your original PHP.ini location to `/usr/local/Zend/etc/php.ini`
 - b. Rename PHP.ini backup (called `php.ini-zend_platform.bak`) to your original PHP.ini
8. Remove the cache directory, install prefix (`/usr/local/Zend`)
9. Start Apache

Manually remove the files that were installed during the installation process.:

1. Manually delete the Zend Platform files that were installed during the installation procedure. These files are found in the following directories:
 - GUI files are installed under the `<document-root>/ZendPlatform` directory
 - Additional files are installed at `<install-dir>/etc/ZendPlatform` directory and various places in the `<install-dir>` (such as `bin/register_node.sh`, `sbin/openssl` etc.)
 - Remove the temporary cache storage directory located by default⁵ in: `/tmp/cache`.
 - If the installation was new or for previously installed Zend products, there may be some other locations.

⁵ The installation process provides an option to define the location of the Cache Storage Directory. When uninstalling Zend Platform, this directory has to be removed from the user defined or default location.

2. In the crontab file (i.e., in the crontab file of httpd's user; each user has their own crontab), you will find commands that relate to Platform and the monitoring functions it performs periodically. Once you uninstall Platform, you should also remove the lines in the crontab file that relate to Platform.

These are the examples of crontab entries that should be removed upon Uninstall:

```
# Zend cache cleaner:
0,10,20,30,40,50 * * * * /usr/local/Zend/sbin/cache_clean
/etc/php4/apache/php.ini
# End of Zend cache cleaner

# Zend collector center:
0,2,4,6,8,10,12,14,16,18,20,22,24,26,28,30,32,34,36,38,40,42,44,46
,48,50,52,54,56,58 * * * * /usr/local/Zend/bin/collector_center
/usr/local/Zend/etc -D
# End of Zend collector center
```

Unattended Installations

It is possible to perform a quick installation of Zend Platform (Standalone) for situations such as large deployments.

To perform an unattended installation:

1. Place the zend_platform.conf in the packages root directory
2. Manually modify the default values of the entries depending on if it is for the Central Server or a Node Installation as follows:

Central Installations

- prefix = <Installation Prefix> ; example: /usr/local/Zend
- webserver = Apache
- apache_user = <Apache username> ; example: nobody
- apache_conf_file = <Path to the Apache configuration file: httpd.conf> ; example: /usr/local/apache/conf/httpd.conf
- apachectl_path = <Path to the Apache control utility: apachectl> ; example: /usr/local/apache/bin/apachectl
- apache_exec_file = <Path to the Apache executable: httpd> ; example: /usr/local/apache/bin/httpd
- webserver_doc_root = <Path to the document root, where you wish to install the GUI> ; example: /usr/local/apache/htdocs
- php_ini_path = <Path to the php.ini> ; example: /usr/local/lib/php.ini
- cache_dir = <Path to cache directory> ; example: /tmp/cache
- gui_password = <Password for accessing the GUI, minimum: 4 alphanumeric characters>
- gui_path = <Path to the GUI within the document root> ; example: ZendPlatform
- install_type = 8195
- java_path = <Path to the Java binary, if you have one> ; example: /usr/local/j2sdk1.4.2_01/bin/java
- server_url = <URL, that corresponds to the document root - accessible from other hosts> ; example: http://gibraltar:80
- server_host = <Hostname> ; example: Gibraltar
- server_port = <Port> ; example: 80

Node Installations

- prefix = <Installation Prefix> ; example: /usr/local/Zend
- webserver = Apache
- apache_user = <Apache username> ; example: nobody
- apache_conf_file = <Path to the Apache configuration file: httpd.conf> ; example: /usr/local/apache/conf/httpd.conf
- apachectl_path = <Path to the Apache control utility: apachectl> ; example: /usr/local/apache/bin/apachectl
- apache_exec_file = <Path to the Apache executable: httpd> ; example: /usr/local/apache/bin/httpd
- webserver_doc_root = <Path to the document root, where you wish to

- install the GUI> ; example: /usr/local/apache/htdocs
- php_ini_path = <Path to the php.ini> ; example: /usr/local/lib/php.ini
 - cache_dir = <Path to cache directory> ; example: /tmp/cache
 - gui_password = <Password for accessing the GUI, minimum: 4 alphanumeric characters>
 - gui_path = <Path to the GUI within the document root> ; example: ZendPlatform
 - install_type = 8193
 - java_path = <Path to the Java binary, if you have one> ; example: /usr/local/j2sdk1.4.2_01/bin/java
 - server_url = <URL, that corresponds to the document root - accessible from other hosts> ; example: http://gibraltar:80
 - server_host = <Hostname> ; example: Gibraltar
 - server_port = <Port> ; example: 80
 - central_password = <Password for communication with Central>
 - collector_url = <URL to Central's GUI administration interface> ; example: http://central-host:80/ZendPlatform
 - server_alias = <Your server alias> ; example: Gibraltar
3. run ./install-tty to complete the installation

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