

Zen CartTM Documentation

Implementation Guide

For Zen CartTM Version 1.5

This is a BETA Release and should not be used on a Live Site

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1. Introduction

This Implementation Guide is meant to help you when installing the current version of the Zen CartTM application. or when updating your current version.

PA-DSS

It is a requirement of the PA-DSS that you follow the instructions in this Implementation Guide when installing or upgrading your Zen CartTM application.

Note also, that this guide is written for the v1.5 release of Zen CartTM unless otherwise noted.

2. Installation Requirements

2.1 Server Hardware Requirements

Zen CartTM itself does not "require" any particular hardware, as long as the hardware you use for your hosting service supports the software requirements that follow.

However, users should be aware that some hardware configurations such as inadequate server RAM, slow server hard drives, excessively restrictive firewalls, etc, can adversely affect the operation of the Zen CartTM application.

2.2 Server Software Requirements

Zen CartTM will work with the following **minimum** requirements.

PHP version >= 5.2.3

MySQL version > 4.1.3

Apache version > 2.0

However it is recommended that you use the latest versions of PHP/MySQL and Apache.

Note: While we recommend the use of Apache as your web server software, it will also work with Microsoft IIS and other Web Servers (e.g. nginx), however some security features will cease to work. Further information on this is provided in the next section regarding .htaccess.

You will also need to ensure that your PHP version has the following modules installed:

cURL – Required for some shipping and payment methods.

OpenSSL support – Usually this is compiled into PHP and cURL upon install of PHP

Unless you will have no customers accessing your site via the internet, you will want an SSL certificate added to your hosting account. A "shared" certificate may work, but dedicated is preferred as it is a more seamless experience for your customers and is much easier to configure.

You will also need to ensure that your hosting service allows you to use SFTP for transferring files

to/from your hosting server.

2.3 Domain Name Requirements

You will need a registered domain name, connected to your webhosting account at your webhosting company. If you need to register a domain name, see the "Register A Domain Name" section on this screen: http://www.zen-cart.com/partners

Temporary use of merely an IP address may work during initial installation, but to actually run your shop will require use of a domain name. Changing it after-the-fact will require manual editing of your configure.php files. An article on making such changes can be found at http://tutorials.zen-cart.com

2.4 Other Installation Requirements

PA-DSS

Zen CartTM uses Apache .htaccess files to better protect some directories for security purposes. You should ensure that your Apache settings allow for the use of .htaccess files on your Web server (most do). If you are unsure please check with your Hosting provider.

Specifically, Apache must be configured with AllowOverride set to either 'All' or at least both 'Limit' and 'Indexes' parameters, and preferably the 'Options' parameter as well.

If you are not using Apache as the web server (e.g. you are using IIS or nginx) then you should take steps to protect the directories in a similar manner to the .htaccess files Zen CartTM suggests.

Your web server must be able to serve pages using SSL encryption and you should have an SSL certificate correctly installed for your domain. If you do not have SSL or are unsure, then once again you must confer with your Hosting provider.

Your web server must also be able to support the use of SFTP for transferring files to/from the server.

3. Obtaining the current Zen CartTM release

The current release is obtainable via SourceForge: https://sourceforge.net/projects/zencart/files The release is provided as a .zip file.

3.1 Hash Keys

Hash keys are a way of checking the validity of a zip file. We provide both md5 and sha1 hashes for the current release. Those hashes can be seen below the download link on the home page of the Zen CartTM support website at http://www.zen-cart.com

We also provide some information on how to check hash keys in the following FAQ article: http://tutorials.zen-cart.com/index.php?article=405

3.2 Patches

The normal distribution of updates is to release a new version with fixes included. In the rare occasion that a separate .zip file is released as a patch, the same hash-verification described above should be performed on the zip file before unzipping to install it on your website. Again, these zips will be released on SourceForge.

4. Unpacking and Uploading the application software files

Before you can unpack and upload the files to your server, you will need two important tools:

• **An "unzip" utility**, such as 7-zip, WinZip, unRar, BetterZip, etc.

Many unzip utilities are available for free, for various computer operating systems. Choose one that suits your computer best.

IMPORTANT: When you unzip, you need to ensure that your unzip program retains the embedded file-structure. Usually that setting is properly "on" by default, but if it prompts you saying "xxxxxx file already exists – overwrite?" or similar, then it's most likely only extracting the "files" and not also the "folders. In that case you'll need to make appropriate adjustments to your unzip application settings before you can properly unzip the Zen CartTM files.

An FTP application capable of SFTP.

An FTP ("File Transfer Protocol") application is used to transfer files between your computer and your webserver.

Tutorials on how to use FTP/SFTP are available online from the vendor of your FTP software, or generically from any number of online reference websites.

Whenever anyone mentions "FTP", you should use SFTP instead. This includes any subcontractors you hire to work on your website for you.

SFTP is explained further below:

Why SFTP vs FTP?

Plain FTP mode transfers files in plain-text over the internet, whereas SFTP ("Secure FTP") uses a secure encrypted connection for doing the transfer. This is important since the files you are transferring to/from your server may include sensitive information. Using an SFTP connection will cause your data to be encrypted as it is transferred, thus protecting it from prying eyes.

Many FTP programs capable of SFTP are available for free or for a modest fee from various online vendors. One very popular such application is FileZilla, which works on both WindowsTM and Mac OSXTM. Some people prefer the more advanced look/feel of paid applications. The choice is yours.

Be sure to use strong secure passwords for your FTP/SFTP access to your webserver.

The Zen CartTM release is packaged as a zip file. You will need to unzip this file using an appropriate tool/application on your local computer, before uploading it to your web server.

NOTE: When you unzip the file it will create a folder, which will be named something like zen-cart-v1.5.x-xxxxxxx...

You should not upload this "zen-cart-v1.5.x.-xxxxx..." directory to your web server, but rather the contents of that directory. The directory on your web server that you need to upload to is usually specific to the hosting platform you are using, and you will need to check those details with your host. Usually this will be the "public_html" or "www" or "httpdocs" or "http" folder.

You can optionally save some time by uploading the zip file directly to your server(using FTP etc.), and

unpacking it in situ if your hosting company provides you a means of unzipping files on the server side. Talk to your hosting company about this.

5. Pre-Installation Actions

5.1 New Installations

Before running the Zen CartTM installer you will need to address the following.

1) MySQL Database

Ensure that you have created an empty MySQL database (and corresponding username and strong secure password) for use with Zen CartTM. How you do this depends on your hosting configuration. Usual methods include using cPanel or phpMyAdmin. If you are unsure, please check with your hosting company.

2) configure.php files

Ensure that you have created the includes/configure.php and admin/includes/configure.php. You can do this by renaming the dist-configure.php files that exist in those directories.

3) Set file and folder permissions as explained in the next section.

5.1.1 File/Folder Permissions

Changing permissions on these files can often be done using your FTP application (unless you are hosted on a Windows server). Or, you can use a File Manager console provided by your hosting company's control panel. If you need help understanding the concepts of file permissions and some general guidance on making these changes, consult this tutorial article: http://tutorials.zen-cart.com/index.php?article=9

- 4) Ensure that the INSTALL_DIRECTORY/includes/configure.php and INSTALL_DIRECTORY/admin/includes/configure.php are writeable. These file needs to be writeable during the installation only, so that we may save some important settings to them. Once the installation is complete you will need to make the files read only again.
- 5) Ensure that the directory INSTALL_DIRECTORY/cache is writeable. This directory needs to be writeable as the Zen CartTM application may need to store some important files here (Session and Cache data, as well as some error logs).
- 6) Ensure that the directory INSTALL_DIRECTORY/images is writeable. The images directory needs to be writeable to allow for the uploading of product and other images that you will use in your store.
- 7) Ensure that the directory INSTALL_DIRECTORY/pub is writeable. The pub directory needs to be writeable to allow for the downloading of any virtual products that you sell, eg. Media files (mp3/wmv/pdf). *If you do not intend to ever sell these types of products then this directory does not need to be writeable.*
- 8) Ensure that the directory INSTALL_DIRECTORY/admin/images/graphs is writeable. This directory needs to be writeable to allow for the creation of graph images that represent the statistics for any banners you may serve.

Note. After installation is complete, you will need to change some permissions again. More information

is given later in this document (See the section on Post Installation Activities.)

5.2 Upgrades

Warning: You should never directly upgrade a live site. Always test it separately first!

Your upgrade should be staged using a separate folder+database on your server, and then migrated to the live site only after you've tested to confirm that no problems have been introduced in your implementation of the upgrade.

Please see http://www.zen-cart.com/upgrades for guidance regarding upgrading a live site.

6. Running the Web-Based Installer

6.1 New Installs

6.1.1 Introduction

To run the Zen CartTM installation wizard, you will need to use your browser to access the web server where you installed Zen CartTM. The installation wizard is accessed from the folder /zc_install.

So if you have set your web server up to be accessed as http://www.MY_DOMAIN.com/

Then you would need to set your browser url to http://www.MY DOMAIN.com/zc install/

Note. If you attempt to load the URL where your store will ultimately reside, before running the Installation wizard, you may get a blank page, or a screen that looks like the screen shot below.



Hello. Thank you for loading Zen Cart™.

You are seeing this page for one or more reasons:

- This is your first time using Zen Cart™ and you haven't yet completed the normal Installation procedure.
 - If this is the case for you, Click here to begin installation.
- 2. Your /includes/configure.php and/or /admin/includes/configure.php file contains invalid path information and/or invalid database-connection information.
 - If you recently edited your configure.php files for any reason, or maybe moved your site to a different folder or different server, then you'll need to review and update all your settings to the correct values for your server.
 - See the Online FAQ and Tutorials area on the Zen Cart™ website for assistance.
- 3. Additional Details: includes/configure.php not found

To begin installation ...

- 1. The <u>Installation Documentation</u> can be read by clicking here: <u>Documentation</u>
- 2. Run zc install/index.php via your browser.
- 3. The Online FAQ and Tutorials area on the Zen Cart™ website will also be of value if you run into difficulties.

6.1.2 Step 1 Welcome Screen

The Welcome Screen provides some brief information regarding the Zen Cart[™] Project. To proceed, elick on the Continue button.

:: Zen Cart™ Setup - Welcome

Welcome to the setup program for Zen Cart™ v1.5 release. This setup program will guide you through the necessary steps to ensure Zen Cart™ is properly installed on your system.

Welcome To Zen Cart™ - The Art of E-Commerce

Designed for Online Merchants

Zen CartTM truly is the art of e-commerce; a free, user-friendly, open source shopping cart system. The software is being developed by group of like-minded shop owners, programmers, designers, and consultants that think e-commerce could be, and should be, done differently.

Some other "solutions" seem to be complicated programming exercises instead of responding to users' needs. Zen Cart™ puts the merchant's and shopper's requirements first.

Similarly, other programs are nearly impossible to install and use without an IT degree. Zen Cart™ can be installed and set-up by anyone with the most basic computer skills.

Continue



6.1.3 Step 2 License Confirmation

The Zen Cart[™] application is released using the GNU General Public License. To use the application, you must acknowledge your agreement to this. Please read the license thoroughly before accepting the license terms and continuing.

: Zen Cart™ Setup - License Confirmation

Welcome to the setup program for Zen Cart™ v1.3.10a release. Please confirm your acceptance of the license terms.

The GNU General Public License (GPL)

Version 2, June 1991

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Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public License is intended

- I have read and agree to abide by the Terms and Conditions as stated above.
- I have read and do not agree to abide by the Terms and Conditions as stated above.

Continue

Copyright © 2003-2010 Zen CartTM



6.1.4 Step 3 System Inspection

The System Inspection page checks that various required web server components exist, and permissions are set correctly for the Zen CartTM application to function correctly. You should review all items on this page and take any necessary actions to correct problems highlighted here, before continuing.

:: Zen Cart™ Setup - System Inspection

Take a moment to check whether your webserver supports the features required for Zen Cart™ to operate.

Please resolve any errors or warnings before continuing. Then click on *Install* to continue.

Documentation

Have you read the Installation Instructions yet?

The Installation Instructions will be a big help if you have not already read them.

There you will find information about permissions-levels you will need to set to various folders/files and other details about installation prerequisites, as well as things to do after you are done with installation. There are also links there to the online FAQs and other helpful resources.

System Inspection Results

```
Webserver = Apache/2.2.14 (Ubuntu)
   HTTP Host = localhost
   Path Translated = /home/ /public html/v1: 0/zc install/index.php(SCRIPT FILENAME)
   Real Path = /home/ /public_html/v1310
   Server Free Disk Space = 237.66 GB
   PHP O/S = Linux
   PHP API Mode = apache2handler
   PHP Max Execution Time per page = 30
   Register Globals = OFF
   MySQL Support = ON
   PHP Version = 5.3.2-1ubuntu4.2
  PHP Safe Mode = OFF
PHP Sessions Support = ON
   PHP Session.AutoStart = OFF
PHP session.use_trans_sid = OFF
Suggested SQL Cache Folder = /home/\ /public_html/v1
PHP magic_quotes_runtime setting = OFF
PHP magic_quotes_sybase setting = OFF
PHP GD Support = ON
GD Version = GD 2.0
PHP ZLIB Compression Support = ON
PHP OpenSSL Support = ON
PHP cURL Support = ON
CURL NON-SSL Capability = Okay
CURL SSL Capability = Okay
   PHP Upload Support = ON upload max filesize=2M; post max size=8M
PHP Upload TMP dir =
```

Other System Information (For Reference Only) -

The following info does not necessarily indicate any problem or configuration issue. It is simply for the sake of displaying it in an easy-to-find location.

```
PHP include_path = ::/usr/share/php:/usr/share/pear
PHP SMTP destination = localhost
PHP sendmail path = /usr/sbin/sendmail -t -i
PHP sendmail 'from' =
PHP open_basedir restrictions =
PHP Output Buffering (gzip) = ON
```

PHP FTP Support = ON

PHP XML Support = ON

PHP Session.Save_Path = /home/\ 'public_html/v1 .0/cache -->Writeable

File and Folder Permissions

In order for the installer to store the setup information you provide in the following pages, the configure.php files shown below need to be "writable".

includes/configure.php = Writeable
admin/includes/configure.php = Writeable

In order for many Zen CartTM administrative and day-to-day functions to work properly, You need to mark several files/folders "Writeable". The following is a list of folders which need to be "read-write", along with recommended CHMOD settings. Please correct these settings before continuing installation. Refresh this page in your browser to re-check settings.

Some hosts may not allow you to set CHMOD 777, but only 666. Start with the higher setting first, and switch to lower values if required.

cache = OK
images = OK

includes/languages/english/html_includes = OK

media = OK

pub = OK

admin/backups = OK

admin/images/graphs = OK

Ready to Install? (This will wipe any existing data. You are NOT in Upgrade mode!!!)

Install Re-Check

6.1.5 Step 4 Database Setup

6.1.5.1 Database Character Set/Collation

First choose the charset/collation for your Database connection. Normally you should just leave this at the default setting, however some languages may need this to be set differently.

6.1.5.2 Database Host

The database host setting is specific to your hosting service. Generally this will be **localhost**, but you may need to set it to a specific IP address or domain. Your hosting provider provides these details.

6.1.5.3 Database Username/Password

Your hosting provider should also have supplied you with details of the Database user name and password, or you may have chosen these yourself when you created the blank database.

NOTE: It is important that you use strong PCI DSS compliant usernames and passwords for your database access. If your hosting company generated a name or password that's easily guessed or otherwise not "strong", it is up to you to change it to something strong and secure, the tools provided by your hosting company.

6.1.5.4 Database Name

Enter the database name for the blank database you created earlier.

the appropriate box and press Save Database Settings to continue.' Database Information -Database Type MySQL 🗘 Choose the database type to be used. more info... **Database Host** What is the database host? The database host can be in the form of a localhost host name, such as 'db1.myserver.com', or as an IP-address, such as '192.168.0.1'. more info... **Database Username** What is the username used to connect to the database? An example username is 'root'. more info... **Database Password** What is the password used to connect to the database? The password is used together with the username, which forms your database user account. more info... **Database Name** What is the name of the database used to hold the data? An example

Next we need to know some information on your database settings. Please carefully enter each setting in

6.1.5.5 Store Identifier [Table Prefix]

Zen Cart™ Setup - Database Setup

database name is 'zencart' or 'myaccount zencart'. more info...

You may enter a prefix for the tables created and used by Zen CartTM. This should only be necessary if you need to share the database with another application that you have installed on your web server.

6.1.5.6 SQL Cache Method

Zen CartTM can cache the results of some sql queries. This can help to reduce load on the Database server and speed up the application.

6.1.5.7 Session/SQL Cache Directory

This is the path to the directory that would be used to save session and SQL caching information. Generally you won't need to change this unless the setting that is chosen/auto-selected causes problems.

An advanced store configuration might consider moving this "cache" folder location outside the webroot. This can be done post-installation. There are guides for such advanced configuration available at http://tutorials.zen-cart.com

Database - OPTIONA	L Settings		
It is recommended to lea	ave these settings as	-is unless you have a specific re	ason for altering them.
Store Identifier (Tabl	e-Prefix)		
What is the prefix you would like used for database tables? Example: zen_			
Leave empty if no prefix is needed.			
You can use prefixes to allow more than one store to share the same database. more info			
SQL Cache Method			
Select the method to use for SQL caching. more info			
6			
Session/SQL Cache	/Users/	/cache	
Directory	, ,	,	
Enter the directory to use for file-based caching. more info			

Save Database Settings

6.1.6 Step 5 System Setup

6.1.6.1 Physical Path To Zen Cart™

This is the location of the Zen CartTM application files on the hard drive of your server. Generally the system will auto-detect this, and you should only change it if the auto-detection has not chosen the correct path.

6.1.6.2 URL to your Zen Cart™ store

This is the URL that will be used to access your store. Again, auto-detection should have chosen the correct setting and you should only change it if it is incorrect.

6.1.6.3 HTTPS Domain

Generally your HTTPS domain will be the same as your normal HTTP domain. However some hosts use a separate special domain for HTTPS. Check with your hosting provider if you are unsure.

6.1.6.4 HTTPS Server URL

The URL that will be used to access the HTTPS domain for your web site. If you have your domain in the root of your web server, this will be the same as your HTTPS domain above. However you may have your web site in a directory, such as https://www.MY_DOMAIN.com/store

:: Zen Cart™ Setup - System Setup

We will now setup the Zen Cart™ System environment. Please carefully review each setting, and change if necessary to suit your directory layout. Then click on Save System Settings to continue.

— Server/Site Settings -	
Physical Path To Zen	
Cart™	/path/to/zen/cart/install
Physical Path to your	
Zen Cart™ directory.	
Leave no trailing slash.	more info
URL to your Zen	
Cart™ store	http://www.MY_DOMAIN.com
Virtual Path/URL to	
your	
Zen Cart™ directory.	
Leave no trailing slash.	more info

6.1.6.5 Enable SSL

Whether to use SSL/HTTPS for the catalog side of your store to automatically encrypt communications on pages that collect sensitive data.

If you don't have an SSL certificate enabled in your hosting service yet, select No. You can enable it later manually by following this tutorial: http://tutorials.zen-cart.com/index.php?article=14

6.1.6.6 Enable SSL in Admin Area

Save System Settings

Whether to use SSL/HTTPS for the admin side of your store. See note above.

PA-DSS

To comply with PA-DSS you MUST enable SSL here for both the Admin and Storefront.

When enabled here, Zen CartTM will automatically activate SSL on storefront pages which need it (ie: checkout, my account, login, etc) as long as the option is enabled here.

Additionally, built-in payment modules which are capable of accepting credit cards directly on your site will NOT function if you do not have SSL capability available and enabled in Zen CartTM.

Redetect defaults for this host

6.1.7 Step 6 Store Setup

The following settings are requested here, but can be changed later by logging in to your administration panel of the Zen CartTM Application.

Click the "more info..." links on-screen for more detailed information.

Store Name

Enter the name of your Store here.

Store Owner

Enter the name of the Store owner here. This will be displayed as the name of whom to contact regarding problems with a purchase or with accessing your site.

Store Owner Email

Enter the email address for contacting the storeowner here. This is displayed in emails and is used for sending Contact Us messages from your store.

Store Country

Enter the Country of the store here. This is used for determining tax and shipping and other geographically dependent operations.

Store Zone

Enter the Zone/State of the store here. Again, used for tax and shipping and related activities.

Store Address

Enter the address of the store here. This is displayed on the Contact Us screen when enabled.

Default Language

Enter the default language for the store here. If the language you want is not in the list, you may need to download additional language pack(s) from http://www.zen-cart.com/index.php? main-page=index&cPath=40 46

Default Currency

Enter the default currency for the store here. If the currency you require is not listed, you can set up additional currencies after the application has been installed.

:: Zen Cart™ Setup - Store Setup

This section of the Zen Cart[™] setup tool will help you begin setting up your basic store settings. You will be able to change any of these settings later using the administration tool. Enter each value carefully and press Save Store Settings to continue.

Store Information —
Store Name
What is the name of your Zen Cart™ store?
more info
Store Owner
Who is the owner of your Zen Cart™ store?
more info
Store Owner Email
What is the Zen Cart™ store owner's email
address? more info:
Store Country
What country is your Zen Cart™ store United States ≎
located in? more info
Chang Zong
Store Zone What zone is your Zen Cart M store located in 2 more Please Select
What Zone is your Zen Cart Store located in: More
info
Store Address
What is the address of your Zen Cart™ store? This address will be Store Name
used on printable documents and displayed online, more info
Country
Phone
Default Language
Please select your default language? more info
The state of the s
Default Currency
Please select your default currency? more info US Dollar

6.1.7.1 Store Demo

Zen CartTM comes with a set of demo data that allows you to explore the in built functionality of the application out of the box. You may find it useful load this demo data so that you can get comfortable with the application, before you actually start to build your own store.

The demo data/products can be removed at a later date.



6.1.8 Step 7 Administrator Account Setup

6.1.8.1 Administrator's User name

This is the user name used to initially access the Applications administration panel. This user has access to all of the functionality of the Administration panel. You can set up additional users with restricted permissions once the application has been installed.

6.1.8.2 TEMPORARY Administrator's Password

The password must be at least 7 characters and contain a mix of alphanumeric characters. This is just a TEMPORARY password which must be changed upon first login to your admin area.

6.1.8.3 Confirm Temporary Administrator's Password

Repeat the password here as confirmation

6.1.8.4 Administrators Email

This is the email address of the initial Administrator, and may be used for sending password resets or testing outgoing email newsletters etc.

PA-DSS

As you will probably have accessed this installation without using SSL, then there is an extremely small possibility that a someone might have intercepted your admin username/password.

You should therefore ensure that you enable SSL for your admin, and then choose a new admin password.

:: Zen Cart™ Setup - Administrator Account Setup

To administer settings in your Zen Cart™ shop, you need an Administrative account. Please select an administrator's name, and password, and enter an email address for reset passwords to be sent to. Enter and check the information carefully and press Save Admin Settings when you are done.

Administrator Information —
Administrator's Username
Enter the username to be used for your Zen Cart™ administrator
account, more info
Administrator's Password
Enter the password to be used for your Zen Cart™ administrator
account more info
Confirm Administrator's Password
Confirm the password to be used for your Zen Cart™
administrator account, more info
administrator account. More man
Administrator's Email
Enter the email address to be used for your Zen Cart™
administrator account. more info
- Upgrade Detection -
✓ Check for Zen Cart™ updates when logging into Admin
This will attempt to talk to the live Zen Cart™ versioning server to determine if an upgrade is available
or not. If an update is available, a message will appear in admin. It will NOT automatically APPLY any
upgrades.
You can override this later in Admin->Config->My Store->Check if version update is available.
Save Admin Settings
ouve / turning octungs

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6.1.9 Step 9 Setup Finished

Now that setup is finished, a number of post-installation instructions are presented for you to follow. Further details are enumerated in Section 7 – Post-Installation Activities, later in this guide.

6.2 Using zc install to do The Database Upgrade Step of a Site Upgrade

6.2.1 Introduction

Upgrading consists of both manually updating the PHP files on your site, as well as upgrading the database structure to work with the new requirements of the new version. IT IS NOT ENOUGH TO SIMPLY UPGRADE THE DATABASE. YOU MUST ALSO UPGRADE ALL YOUR PHP FILES ACCORDING TO THE INSTRUCTIONS CONTAINED IN EACH INDIVIDUAL RELEASE.

The document you have in front of you does not address the PHP file updates. See the proper upgrade documentation at http://www.zen-cart.com/upgrades to understand and do the full upgrade process.

The instructions below ONLY deal with the database-side of the upgrade step.

DATABASE UPGRADE STEP:

To do the database upgrade step, you will use zc_install just as you would for a manual new install:

To run the Zen CartTM installation/upgrade wizard, you will need to use your browser to access the webserver where you installed Zen CartTM. The installation wizard is accessed from the folder /zc install, ie: http://www.MY DOMAIN.com/zc install/

6.2.2 Step 1 Welcome Screen

Continue

The Welcome Screen provides some brief information regarding the Zen Cart[™] project. To proceed, click on the Continue button.

:: Zen Cart™ Setup - Welcome

Welcome to the setup program for Zen Cart™ v1.3.10a release. This setup program will guide you through the necessary steps to ensure Zen Cart™ is properly installed on your system.

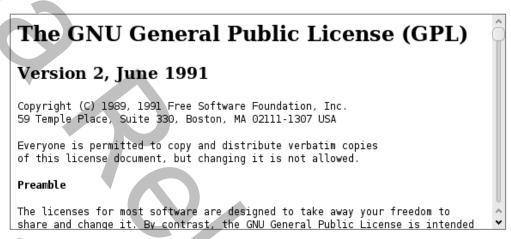
Welcome To Zen Cart™ - The Art of E-Commerce Designed for Online Merchants Zen Cart™ truly is the art of e-commerce; a free, user-friendly, open source shopping cart system. The software is being developed by group of like-minded shop owners, programmers, designers, and consultants that think e-commerce could be, and should be, done differently. Some other "solutions" seem to be complicated programming exercises instead of responding to users' needs. Zen Cart™ puts the merchant's and shopper's requirements first. Similarly, other programs are nearly impossible to install and use without an IT degree. Zen Cart™ can be installed and set-up by anyone with the most basic computer skills. Others are so expensive ... not Zen Cart™, it's FREE!

6.2.3 Step 2 License Confirmation

The Zen Cart[™] application is released using the GNU General Public License. To use the application, you must acknowledge your agreement to this. Please read the license thoroughly before accepting the license terms and continuing.

:: Zen Cart™ Setup - License Confirmation

Welcome to the setup program for Zen Cart™ v1.3.10a release. Please confirm your acceptance of the license terms.



- I have read and agree to abide by the Terms and Conditions as stated above.
- I have read and do not agree to abide by the Terms and Conditions as stated above.

Continue

6.2.4 Step 3 System Inspection

:: Zen Cart™ Setup - System Inspection

Take a moment to check whether your webserver supports the features required for Zen Cart™ to operate. Please resolve any errors or warnings before continuing. Then click on *Install* to continue.

- Documentation -

Have you read the Installation Instructions yet?

The **Installation Instructions** will be a big help if you have not already read them. There you will find information about permissions-levels you will need to set to various folders/files and other details about installation prerequisites, as well as things to do after you are done with installation. There are also links there to the **online FAQs** and other helpful resources.

Upgrade Mode Available

Previous Zen Cart™ Installation Found

Database appears to be Zen Cart™ v1.3.9

Install or Upgrade?



NOTE:

If you are Upgrading, be sure to choose "<u>Database Upgrade</u>" below to keep your data.

If you choose "Install", you will erase all the contents of your database.

Install (Upgrade Cfg Files) (Database Upgrade) (Re-Check)

6.2.5 Step 4 Version-upgrade-checkboxes

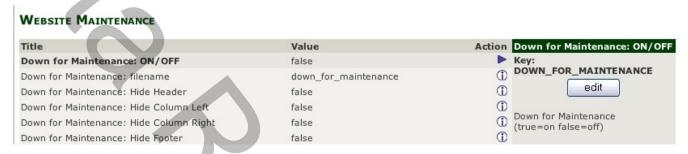
Now you are presented with a list of version-upgrade steps that zc_install is capable of upgrading for you. The system will pre-inspect your database and pre-check the checkboxes for the version steps which need upgrades performed in your database. In a normal upgrade, you simply need to leave the checkboxes as-is, and scroll to the bottom of the page and fill in your Admin username and password to authorize the upgrade.

:: Zen Cart™ Setup - Database Upgrade
Warning: This script should ONLY be used to upgrade your Zen Cart™ database schema through the versions listed below. We HIGHLY RECOMMEND doing a full backup of your database prior to performing any upgrades on it!
Please check the details below very carefully. This information is taken from your configure.php settings. Do not proceed unless you're sure they're correct, or else you risk corruption to your database.
Database Information - Upgrade Sniffer predicts: upgrade v1.3.9 to v1.5.0
Database Type = mysql Database Host = localhost Database Name = Database Username = Database Table-Prefix =
Please confirm your desired upgrade steps
☐ Upgrade DB from 1.2.7 to 1.3.0
☐ Upgrade DB from 1.3.0 to 1.3.0.1
☐ Upgrade DB from 1.3.0.1 to 1.3.0.2
☐ Upgrade DB from 1.3.0.2 to 1.3.5
Upgrade DB from 1.3.5 to 1.3.6
Upgrade DB from 1.3.6 to 1.3.7
Upgrade DB from 1.3.7 to 1.3.8
Upgrade DB from 1.3.8 to 1.3.9
▼ Upgrade DB from 1.3.9 to 1.5.0
Database Security
Your Administrator username/password (the one that you use to access your shop Admin area) are required in order to make database changes. (This is NOT your MySQL password) more info
Admin Username (from Zen Cart™ Admin area)
Password
After clicking below, DO NOT INTERRUPT. Please be patient during upgrade.
Update Database Now

6.2.6 Step 5 Database-Upgrade Step Finished

REMEMBER: An upgrade is NOT COMPLETE if you do not ALSO upgrade all your PHP files to work with the new version. This involves reconstructing your customizations in the new versions of the files.

With the Database Upgrade step complete, **if your PHP files have also been updated** and your customizations merged into them, then you're ready to log into your Admin and turn off the Down For Maintenance mode via Admin->Configuration->Website Maintenance



7. Post Installation activities

7.1 Changing The Admin Directory Name for Security-By-Obscurity

When Zen Cart[™] is initially installed, the admin panel is found at INSTALL DIRECTORY/admin

Since the name "admin" is publicly known, leaving it as "admin" poses some degree of security threat. Therefore, before you can access the admin panel you must change the name of that directory to something not so easy to guess. If you do not, you will see the warning message mentioned in section 7.5 below.

Changing the admin directory involves editing your /admin/includes/configure.php file, and is explained in detail in this tutorial: http://tutorials.zen-cart.com/index.php?article=33

7.2 Enabling SSL in your Admin

For PA-DSS compliance, all access to your admin area must be done via SSL. To do this, follow the instructions for the required additional changes to your /renamed-admin/includes/configure.php file in this tutorial: http://tutorials.zen-cart.com/index.php?article=14

7.3 Setting directory and file permissions

As mentioned in section 5.1 a number of directories and files need special permissions in order for Zen CartTM to function correctly.

Specifically:

- The directory INSTALL_DIRECTORY/cache needs to be writeable.
- The directory INSTALL_DIRECTORY/pub needs to be writeable.
- The directory INSTALL_DIRECTORY/images needs to be writeable.
- The directory INSTALL_DIRECTORY/admin/images/graphs needs to be writeable.

Also during installation you will have created these files:

- INSTALL_DIRECTORY/includes/configure.php and
- INSTALL_DIRECTORY/admin/includes/configure.php with write permissions.

These 2 files must have their permissions changed so that they are read only.

If you need help understanding the concepts of file permissions and some general guidance on making these changes, consult this tutorial article: http://tutorials.zen-cart.com/index.php?article=9

N.B. The Zen CartTM application will attempt to automatically set the permissions of these 2 files to read only, after installation is complete. However this cannot be guaranteed and you should ensure that this it is done properly. (Warnings will be prominently displayed if the permissions on these files are

incorrect.)

7.4 Removing the installation directory

You must remove the INSTALL_DIRECTORY/zc_install folder once installation is completed.

Leaving the zc_install folder on your server poses a security risk, since someone could possibly delete your store database content if they gained unauthorized access to it. Thus, until you remove it, a warning message will be presented if the folder exists when you access your storefront.

7.5 Blocked Administration Access

Please note, if you have not changed your admin directory, or have not removed the installation directory then you will not be able to access the Administration system and you will be presented with a screen as below.

Warning!

Warning: You cannot access the admin until you have

- deleted the zc_install folder.
 (Use your FTP program or your hosting control panel.)
- renamed the admin folder.
 Help for renaming the admin folder can be found here

Then, to access your admin area, type the new URL into your browser, ie: http://www.your_site.com/YourAdminFolder/

Further details on how to change the name of the admin directory can be found at http://tutorials.zen-cart.com/index.php?article=33

8. Accessing the Administration Panel and Configuring Users and Passwords

8.1 Introduction

This release now includes a system for managing multiple admin users and restricting the access of those users to only certain functions of the Administration system.

Initially only one user is created (The user/password you created during installation). This user is assigned a 'Superuser' profile, i.e. it has access to all administration functionality.

PA-DSS

As you will probably have performed the installation without using SSL, there is an extremely small possibility that a someone might have intercepted your admin username/password.

If you don't have SSL enabled on your site yet, you need to do that NOW (see section 7.3 of this guide), and then change your admin password.

8.2 PA-DSS and Administration Access

Before moving on to how Admin users are managed, there are some fundamental changes that have been made in this area starting with Zen CartTM v1.5.0, in order for the application to meet PA-DSS requirements.

These are as follows:

- Each admin user must have an unique user name. DO NOT share admin usernames with others. Create separate users for each person accessing your store's admin section.
- Passwords must be at least 7 characters in length
- Passwords must consist of a mix of letters and numbers(alphanumeric)
- Passwords and user names are case sensitive
- Passwords must be changed every 90 days
- When changing passwords, users will not be able to choose a password that was used in the prior 4 password changes
- If an incorrect user name/password is entered more than 6 times in a row, access to the administration system will be locked out for 30 minutes
- The administration system has a 15 minute timeout. e.g. if no pages are accessed within a 15 minute period, the admin user will be forced to log in again. Extending this timeout will invalidate your store's PCI Compliance.

Altering the code to relax these requirements will invalidate your store's PCI Compliance.

8.3 Users

You can manage the users who are allowed access to the administration system using the *Admin Access management* \rightarrow *Admin Users* menu entry.

From this screen you will be able to add, delete and change the details of Admin users.



Clicking the edit button will allow you to change the Admin User name, Admin User email address and the profile assigned to that user (although you cannot change the profile assigned to the initial Admin User).

ADMIN USERS ID Name Email Profile 1 Admin admin@mydomain.com Superuser 2 accounts accounts@mydomain.com accounts \$ update cancel

Clicking the reset pwd button allows you to change the password assigned to the admin user.

8.4 Profiles

Profiles describe which functions in the administration system a user can access. Initially only one profile is available, the 'Superuser' profile, which gives access to all the administration system.



However it is also possible to create profiles, so that different users only have access to a subset of the administration system.

For example, you may have users that only need to run reports, or users whose responsibility it is to add products/categories, and those users should not have access to any other administration system functions.

This can be achieved by creating specific profiles, and then assigning those profiles to users.

You can access the Admin Profiles management page using the

Admin Access Management → *Admin Profiles* menu entry.



To add a new profile, click on the 'add profile' button.

You will then get a screen similar to the following:



You can then choose a name for the profile, and select which administration system functions that profile has access to.

The Edit button will bring up a similar screen, however in this case you will be able to change the current functionality granted to all users associated with that profile.

8.5 Admin Activity Logs

The administration system logs all activity any admin user carries out. The system logs this data:

- The date of the access
- The admin id of the user making the access
- The page in the administration system that is being accessed
- The parameters related to the page being accessed
- The IP address of the admin user.

Tampering with this logging functionality will invalidate your PA-DSS certification.

The activity log is held in the database, and over time can become very large. You can manage your activity log via: $Admin\ Access\ Management \rightarrow Admin\ Activity\ logs$

For managing these logs, there are 2 main options as described in the following sections.

8.5.1 Review or Export Logs

Within this section you can choose to export or review the admin activity logs.

Review or Export Logs
INSTRUCTIONS
You can use this page to export your Zen Cart''' Admin User Access Activity to a CSV file for archiving.
You should save this data for use in fraud investigations in case your site is compromised. This is a requirement for PCI Compliance.
Choose whether to display or export to a file.
2. Enter a filename. 3. Click Save to proceed.
Click save to proceed. Choose whether to save or open the file, depending on what your browser offers.
4. Choose whether to save or open the rife, depending on what your or owser others.
Export File Format:
Export as HTML (ideal for on-screen viewing)
Exported Title (location on Salective willing)
Export Filename:
admin_activity_archive_2011-04-22_16-19-21.csv
Save to file on server? (otherwise will stream for download directly from this window)
Destination: /home/wilt/public_html/v1310/admin/backups/
save cancel
Purge Log History
a dige Log Mistory
Empty Admin Activity Log table from the database
WARNING: BE SURE TO BACKUP YOUR DATABASE before running this update!
The Admin Activity Log is a tracking method that records activity in the Admin.
Oue to its nature it can become very large, very quickly and does need to be cleaned out from time to time.
Warnings are given at 50,000 records or 60 days, which ever happens first.
NOTE: For PCI Compliance, you are required to retain admin actvity log history for 12 months.
t is best to archive your logs by choosing EXPORT TO CSV and clicking Save, above, *BEFORE* purging log data.

To review the data, ensure that Export as HTML is selected in the drop down for 'Export File Format' If you want to export/save the logs then this drop down must be set to 'Export to CSV' Furthermore you can choose to either download the export to your local computer or save the

file on the server where you run the Zen $Cart^{TM}$ application from. This is done by either ticking (or not) the check box marked 'Save File on server'.

In either case you can also choose the name of the file produced.

8.5.2 Purge Log History

PA-DSS

Please Note: It is a requirement of PA-DSS that these logs are kept for a minimum of 12 months. While we provide methods to safely backup these logs, and to remove them, store managers are ultimately responsible for ensuring that they can reproduce these logs in the event of a PCI audit.

Clicking on the reset button in the "Purge Log History" section of the screen will take you to a new page with the following content.

ADMIN ACTIVITY LOG MANAGER

WARNING!: You are about to DELETE *important* audit trail records from your database.

You should FIRST confirm that you have a reliable BACKUP of your database before proceeding. By proceeding you accept that this information will be deleted and understand your legal responsibilities regarding this data.

I understand my responsibilities, and wish to proceed with the deletion by clicking Reset:

reset

Please ensure that you read and understand the warning text on this page **before** purging the activity log.

9. Code Customization, Addons, and Plugins

The Zen CartTM community has a vast assortment of available addons/plugins contributed by third-parties, most often other store owners, who have written customized code to extend the capability of Zen CartTM to do additional things beyond the core framework that is Zen CartTM itself. Many have simply put together the customizations they made for their store and shared them back as a significant way of participating and expanding the ever-growing community that has grown up around the Zen CartTM product.

You can find addons to suit almost any special need you might have. And if you can't find something exactly suiting your needs, you can either customize the code yourself or perhaps hire someone to do the customization for you. You are invited to share your customizations back to the community for others who follow along after you to freely enjoy using on their own stores, just as you have benefitted from similar actions by others.

If you don't have the skills to customize programming PHP code yourself and wish to hire someone, there's a vast help-wanted community available as well. You can access the primary help-wanted resource by following this link: http://www.zen-cart.com/helpwanted

PA-DSS

NOTE: The Zen CartTM PA-DSS certification applies only to the original official released code provided by Zen Ventures, LLC

Any customizations you, or a 3rd-party, make to the code, whether by altering admin-provided configuration switches, adding addons/plugins, making code customizations, etc may render the PA-DSS certification void for your site.

It is up to you to ensure that all addons, plugins, customizations, and changed switch settings, are PCI compliant according to the PCI Security Standards. If you have specific questions about whether a change you've made to your site is PCI-Compliant, contact your PCI Scanning vendor for assistance and guidance and appropriate auditing.

10. Engaging 3rd-Party Consultants or Programmers

As mentioned in the previous section, if you don't have the skills to customize programming PHP code yourself and wish to hire someone, there's a vast help-wanted community available as well. You can access the primary help-wanted resource by following this link:

http://www.zen-cart.com/helpwanted

PA-DSS

Please Note: It is a requirement of PA-DSS that 3rd-parties are only granted access to specific components truly required to complete the work requested, and that they use that access in a secure manner, and that they destroy all copies of all information obtained once said access is no longer required.

Some "best practices" you should consider when engaging a consultant are listed in the sections that follow.

10.1 Webstore "Admin"/Backend access

If you need to give someone access to your store's admin panel, create a dedicated admin user profile for that person, and grant them access to ONLY the features they will need to complete the tasks assigned to them.

10.2 FTP Access

FTP Accounts

If you engage someone to do work on your website that requires them to have direct access to the files on your webserver, that will most likely require that they have FTP access. You should NEVER give them your master FTP password.

You should ALWAYS create a new user+password for them using your hosting company's control panel.

You should ALWAYS delete their FTP user as soon as their work is completed. It's dangerous to leave unmonitored accounts active in the hands of persons not in your direct supervision and employment.

Similar wisdom should be applied to employees as well.

• Secure Access – Use SFTP, not FTP

EVERYONE accessing your webserver should be using SFTP to connect.

If they use regular unencrypted FTP mode, then your customer data and website security could be compromised.

More information on the subject of SFTP can be found in Section 4 of this guide.

10.3 Control Panel access

It is unusual for a 3rd-party to need access to your entire hosting account's control panel. If you must give them access, you must change the password to your hosting account when they are finished.

10.4 Secure use of customer database and website files

If you, or a 3rd party, need to make or use a copy of your store's database, either to prepare a staging/testing area, or to debug a problem, it is VERY important that the names of everyone who has access to this data are recorded, that they not share the data with anyone else, and that the data is securely deleted when no longer needed. Secure Erasure is best handled by a software tool that will securely obliterate the datafiles on your PC or wherever you've stored it. Tools for this can be found by numerous online yendors.

Agreement to handle data in this way should form an integral part of your contract with whomever is granted access to this information.

10.5 Two-Factor Authentication

Two-Factor Authentication is the use of a third-party authorization mechanism to verify your identity when logging in. This is commonly implemented via the need to enter more than just a username+password, specifically not just something you "know", but also something you "have". See this wikipedia article for more explanation: Two factor authentication

Zen CartTM allows for the use of two-factor authentication as a means to further enhance the security of accessing your system. If you have engaged the use of a third-party two-factor authentication service, you can integrate it with Zen CartTM in one of two ways:

- a) Follow the instructions of your two-factor authentication solution for adding the required directives to your /renamed-admin/.htaccess file. This will require the token authentication to take place before being allowed to enter your Zen CartTM admin username and password.
- b) Add a custom PHP script to hook into your two-factor authentication solution by defining a constant named ZC_ADMIN_TWO_FACTOR_AUTHENTICATION_SERVICE with a value matching the name of the PHP function which will trigger it. Zen Cart™ will first authenticate you using your Zen Cart™ admin username and password, and then pass you on to your two-factor authentication solution for subsequent token validation. (It will pass an array containing the ZC admin user ID number, username, and email address, which the two-factor authentication system may optionally use. A boolean TRUE response is expected if login is approved. Anything else will trigger a failure.)

The custom code for the custom function which triggers your two-factor authentication solution should be placed in the /renamed-admin/includes/functions/extra_functions/ folder. The constant mentioned above should be defined in a separate PHP file located in your /renamed-admin/includes/extra_datafiles/ folder. Any additional classes which your custom functions need to instantiate should be placed in your /renamed-admin/includes/classes/vendors/ folder. This folder may need to be created first.

If you require Two-Factor Authentication for other remote access activities such as VPN or FTP, you will need to configure those respective applications/utilities to use it as per the documentation provided by those utilities, much like you would configure your FTP program to know which server, username, password, etc to use for accessing your webserver.

11. Removing Old Non-Compliant Data

If your store has used any payment modules that have stored full credit card data or cvv numbers, you must delete all such historical data from your database and from your database backups.

NOTE: You should NOT be using any credit card / payment module that stores complete credit card numbers or cvv numbers in your database, nor one which emails complete credit card numbers or cvv numbers to the storeowner or anyone else.

11.1 Removing Old Credit Card Data From Database Records

An option has always existed to manually mask out individual card numbers and cvv numbers directly from your Admin->Customers->Orders->Edit screen for a specific order if an entire card-number or cvv number is found stored when the order details are displayed for review/fulfillment.

Conveniently, a community-supplied utility exists to manually clear out old credit card and cvv data from a live store: http://www.zen-cart.com/forum/showthread.php?t=154022

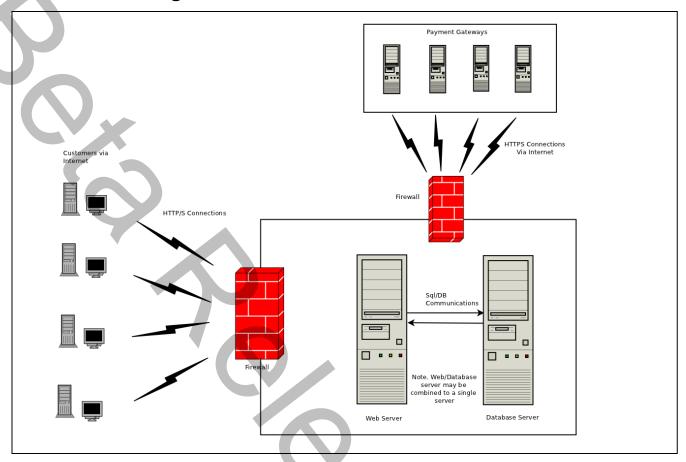
After you've done this, you need to also securely delete the physical data from the server as follows:

11.2 Suggested Procedure For Secure Erasure of Old CHD data

Again, if your store has used any methods of storing full credit card numbers or CVV numbers, the PCI DSS requires that you take specific measures to securely delete that data. The following steps outline an approach one could use for purging that data securely. These steps require that you have administrator access to your server. Thus it may be necessary to engage your hosting company's server administrator to complete these steps.

- a) Use the deletion methods mentioned in section 11.1 above to initially remove the credit card/cvv data from the database table records.
- b) Take the store Down For Maintenance
- c) Make a complete MySQL backup of your store's database tables. This will be used to restore the data after the deletion.
- d) Shut down MySQL
- e) Use a secure-deletion tool to delete the physical files on the server which stored your store's MySQL database. This secure-deletion should perform an erasure using a setting strong enough to prevent forensic recovery of data contained in those files.
- f) Perform a similar secure-deletion of all backup copies of the database tables stored on any media, including remote or physical server hard disk backup images.
- g) The server administrator should perform the same secure-deletion operation on any MySQL log files which could be used to reconstruct any historical database records containing credit card/cvv details.
- h) Start up MySQL
- i) Recreate your store's MySQL database, and MySQL username/password
- j) Import the backup you made in step (c) above, and test your site for normal operation.
- k) Any backups (exports/dumps) you had stored on your server or on your PC must also be securely erased in a manner that prevents forensic recovery of the data.

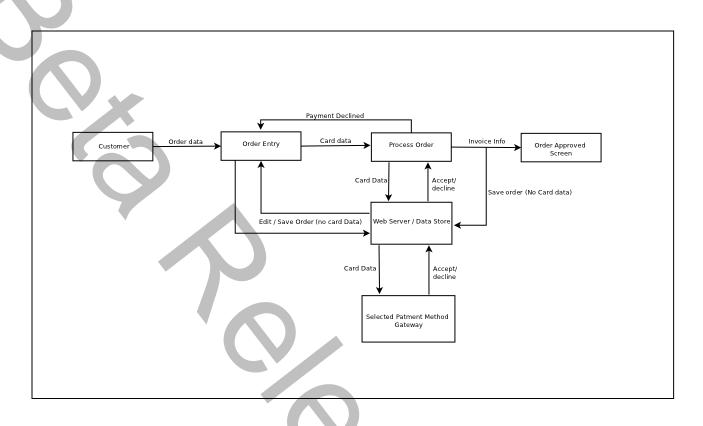
12. Network Diagram



Notes:

- In some hosting configurations, the Web Server and Database Server may reside on the same physical server.
- It is recommended that no wireless based systems should be connected to the Web/Database Server environment. Where such wireless equipment is connected then the application user or their hosting provider should:
 - Install perimeter firewalls between any wireless networks and systems that store, process, or transmit cardholder data and that Perimeter firewalls must deny or control all traffic from the wireless environment into the cardholder data environment.
 - Change default encryption keys
 - Change default SNMP community strings
 - Change default passwords for access points
 - Update firmware to support strong encryption for authentication and data transmission
 - Enable strong encryption (WPA2 or similar)
 - Change other default values as applicable
 - Use industry best practices to implement strong encryption for authentication and transmission

13. Dataflow Diagram



14. Implementation Guide Changelog

Date	Version Number	Changes from previous version
O _x	V1.3	Minor layout changes. Updated Software requirements section Updated New Installations section Added section numbering for clarity
10 th Oct. 2010	V1.4	Minor grammatical fixes (5.1/5.2/6.1.1/6.1.5.5) added content for sections 7.1/7.2/7.3
22 nd April 2011	V1.5	Added sections regarding admin users/profiles and PA-DSS regulations related to passwords (section 8 et al) Added SFTP guidance and explanation of unzip, FTP/SFTP General tidying, after proof reading (multiple sections) Added section about engaging 3rd-party services vs FTP etc Added discussion about removing historical PAN/CVV data
11 th May 2011	V1.6	Add new sections for Network and dataflow diagrams and notation to indicate that credit card gateway modules will not function if SSL is not enabled.
17 May 2011	1.7	Added section explaining how to integrate a two-factor authentication system if required in the merchant's environment Added section explaining how to securely erase old CHD Added link to instructions for enabling SSL for entire admin Added explanation that the initial admin password is only temporary and must be changed on first login.
20 May 2011	1.7b	Typographical corrections, updated Network diagram