

X-Payments: System requirements for X-Payments 2.2

X-Payments user manual

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For hassle-free installation and performance of X-Payments, your server must meet the following requirements:

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Operating system

A Unix-like operating system (Linux, FreeBSD, etc)

PHP configuration

PHP version:

PHP v 5.3.20 or later (versions 5.4.12 or later are recommended)
[Why PHP 5.3 or later?](#)

php.ini settings:

Mandatory:

```
◆ safe_mode = off;  
◆ magic_quotes_sybase = off;  
◆ sql.safe_mode = off;  
◆ ini_set = on;  
◆ memory_limit >= 16M;
```

Recommended:

```
◆ disable_functions = NULL  
◆ max_execution_time >= 30;  
◆ memory_limit >= 32M;  
◆ max_input_time >= 30;  
◆ sendmail_from = username@example.com; (An email address that service email messages will be sent from)  
◆ precision = 14 (the default value set in the php.ini file).
```

PHP extensions:

- ◇ PCRE;
- ◇ HASH;
- ◇ PDO with the MySQL driver;

Important note about PDO extension:

X-Payments requires the PDO extension, as well as the MySQL PDO driver, to be installed as a shared module. In other words your php.ini file needs to be updated so that the PDO extensions will be loaded automatically when PHP runs:

```
extension=php_pdo.so
extension=php_pdo_mysql.so
```

X-Payments will not install if you use a different PHP configuration (i.e. when PHP is compiled with the necessary PDO extensions like '--enable-pdo=shared' and '--with-pdo-mysql=shared'). In this case, please change the configuration as advised above (install both extensions as a shared module).

See also: <http://php.net/manual/en/pdo.installation.php>

- ◇ mcrypt (To encrypt general data through the AES encryption algorithm);
- ◇ XML DOM (To parse XML data);
- ◇ cURL (To send secure HTTPS requests; cURL version 7.39.0 or better is recommended);
- ◇ OpenSSL (To encrypt cardholder's data and API requests);
- ◇ SOAP (Required for the Firstdata e4 payment gateway).

Miscellaneous:

- ◇ The crontab on the server where X-Payments is installed must be configured to periodically run the script cron.php (needed for data cleaning tasks and subscriptions). For more info, see [Running the cron.php script](#).
- ◇ Use SMTP server (with SMTP Authentication option enabled) instead the PHP function mail() to send email;
- ◇ Allow the PHP function fsockopen to ensure correct performance of SMTP mailer.

Note: If you need detailed help on PHP configuration settings, please refer to <http://www.php.net> .

MySQL configuration

MySQL version:

- ◇ MySQL versions 5.2 or later (5.5 is recommended). Not compatible with MySQL 5.7!

MySQL user privileges:

Basic level privileges

- ◇ select_priv;
- ◇ insert_priv;
- ◇ update_priv;
- ◇ delete_priv;
- ◇ lock_tables_priv;
- ◇ index_priv;

Privileges for the software installation and upgrade

- ◇ create_priv;
- ◇ drop_priv;
- ◇ alter_priv.

MySQL user limitations:

- ◇ MAX_QUESTIONS - no limitations;
- ◇ MAX_UPDATES - no limitations;
- ◇ MAX_QUERIES_PER_HOUR - no limitations;
- ◇ MAX_USER_CONNECTIONS - no limitations.
- ◇ max_allowed_packet - from 8 MB to 16 MB (recommended);
- ◇ wait_timeout - from 7200 to 28800 (recommended).

InnoDB:

- ◇ Must be enabled. Make sure there is no "skip-innodb" in my.cnf.

Apache configuration

Apache is the recommended web server for X-Payments. The settings described below refer to Apache only.

Distributed configuration file:

- ◇ AccessFileName .htaccess; (The filename must always be .htaccess);
- ◇ AllowOverride = ALL; (You must have sufficient permissions to change the settings of the web directory through the .htaccess file).

PHP running mode:

If PHP interpreter is compiled as CGI, it must have the --enable-force-cgi-redirect option (without --enable-discard-path) enabled. This allows you to avoid the trouble with setting 755 permissions on PHP scripts and registering #!/usr/bin/php.

Apache modules:

Mandatory

- ◇ mod_dir; (For correct operation of DirectoryIndex)
- ◇ mod_access; (For correct operation of Deny From All and Allow From All)
- ◇ mod_auth; (For correct HTTP authentication)

Recommended

- ◇ mod_expires; (To setup file caching)
- ◇ mod_gzip / mod_deflate. (For page compression)

HTTPS settings

HTTPS must be enabled.

Secure Shell access

For some operations, you will need to have secure shell access to the server where X-Payments is installed. These operations include:

- ◇ Codebook regeneration
- ◇ PIN-codes generation

If shell access is not allowed, the necessary actions can be performed with the help of the PHP shell_exec() function. You'll need to create a script shell.php like the following:

```
<?php
$cmd = 'SHELL COMMAND';
echo shell_exec $cmd . '2>&1';
?>
```

(Be sure to replace SHELL COMMAND with the actual command that needs to be executed).

Upload this script onto the server where X-Payments is installed and allow it in the <xp-dir>/.htaccess file by adding the following lines:

```
<Files ~ "shell.php">
Order deny,allow
Allow from all
</Files>
```

Then open this file in the web browser.

Important: Right after the operation has been completed, remove the shell.php file and restore the original <xp-dir>/.htaccess file.

System parameters

Network settings:

- ◇ X-Payments must use the IPv4 protocol;
- ◇ Outgoing TCP connections must be opened to ports 25, 80 and 443;
- ◇ External domains must be allowed at both system and PHP levels, that is the PHP functions gethostbyaddr and gethostbyname must work without any limitations;
- ◇ Domains hosted on a localhost server must be resolved to an external IP address if the server is behind NAT.

Disk space:

- ◇ 15 MB for a fresh application installation;
- ◇ From 5 MB for the database. Exact amount of disk space required for the database depends on the number of transactions.

Shopping cart software

Your shopping cart software must support **X-Payments:API**. This can be achieved by installing an appropriate X-Payments connector. More info about the connectors is available [here](#):

- [Connecting X-Payments with X-Cart 4](#)
- [Connecting X-Payments with X-Cart 5](#)
- [Connecting X-Payments with LiteCommerce](#)
- [Using X-Payments with Magento](#)
- [Using X-Payments with Magento 2](#)
- [Connecting X-Payments with Zen Cart and osCommerce](#)
- [Using X-Payments with Zoey](#)



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