

Apache vs PHP-FPM Bottleneck with Child Processes

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Overview

Apache servers that use the `prefork` MPM with fewer server instances than the maximum number of PHP-FPM child processes may experience performance issues. This document explains how to resolve this dependency issue.

Important:

This issue and solution **only** apply to servers that run Apache's `prefork` MPM.

The issue

In the following scenario, the PHP-FPM server's configuration allows a maximum of 20 PHP-FPM child processes and the Apache server's configuration allows five server instances.

The following example represents the PHP-FPM server's configuration file:

```
_is_present: 1
pm_max_children: 20
pm_max_requests: 20
```

The following example represents the Apache server's configuration file:

```
StartServers: 5
<IfModule prefork.c>
MinSpareServers: 10
MaxSpareServers: 10
</IfModule>
```

If the Apache server receives 20 requests, it immediately passes five of those requests to the available PHP-FPM child processes. After PHP-FPM processes those requests, Apache will pass another five requests to PHP-FPM.

For high-volume servers, this configuration can cause severe performance issues.

The solution

To solve this issue, you **must** configure Apache to allow enough server instances to handle the maximum number of PHP-FPM child processes.

Set the *Start Servers* option in WHM's *Global Configuration* interface (*WHM >> Home >> Service Configuration >> Apache Configuration >> Global Configuration*) to a value greater than or equal to the `pm_max_children` setting in WHM's *MultiPHP Manager for WHM* interface (*WHM >> Home >> Software >> MultiPHP Manager*).

Additional documentation

[Suggested documentation](#) [For cPanel users](#) [For WHM users](#) [For developers](#)

- [The rebuild_phpconf Script](#)
- [EasyApache 4 Interface](#)
- [PHP-FPM User Pools](#)
- [PHP-FPM Code and FileSystem Layout for EasyApache 4](#)
- [Apache vs PHP-FPM Bottleneck with Child Processes](#)

- [MultiPHP INI Editor for cPanel](#)
- [MultiPHP INI Editor for cPanel](#)
- [MultiPHP Manager for cPanel](#)
- [MultiPHP Manager for cPanel](#)

- [How to Limit a User's Available PHP Versions in the MultiPHP Manager](#)
- [How to Edit Your php.ini File](#)
- [Configure or Disable PHP-FPM with User Pools for EasyApache 4](#)
- [CVE-2016-5387 HTTPoxy](#)
- [How to Update Your System](#)

- [UAPI Functions - LangPHP::php_get_impacted_domains](#)
- [WHM API 1 Functions - ea4_pre_migrate_check](#)
- [WHM API 1 Functions - php_fpm_config_set](#)
- [WHM API 1 Functions - php_fpm_config_get](#)
- [WHM API 1 Sections - EasyApache](#)