

WordPress Performance & Speed Optimisation Cheat Sheet

A Developer's Quick Reference Guide

Introduction

Welcome to this concise guide on WordPress performance optimisation—a distillation of proven techniques that can transform sluggish websites into lightning-fast user experiences.

Every second your website takes to load costs you visitors, customers, and revenue. Research demonstrates that a single second delay reduces conversions by 7% and page views by 11%. When load times stretch from one to three seconds, bounce rates surge by 32%. These aren't abstract statistics—they represent real money leaving your clients' businesses every day their websites underperform.

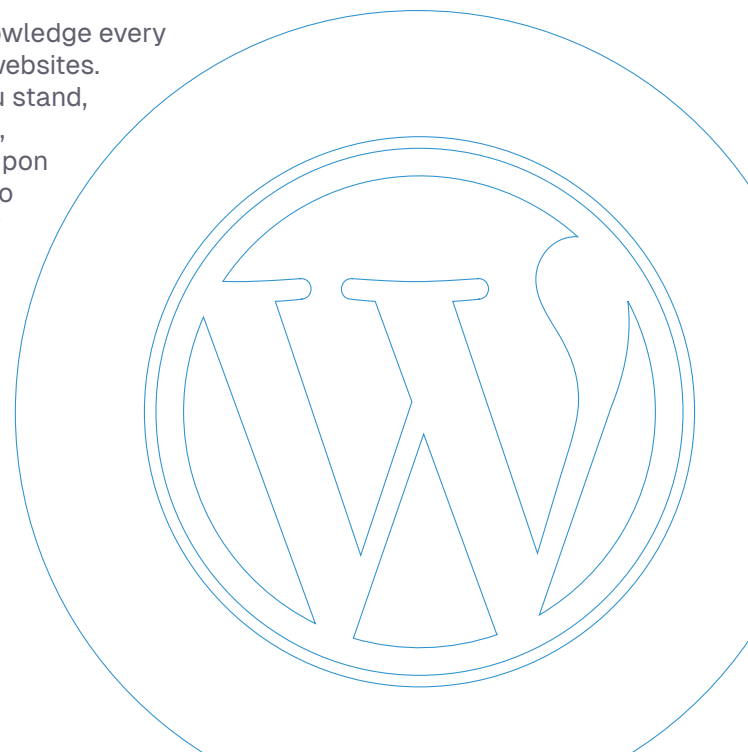
WordPress powers over 40% of the web, yet most installations crawl when they should sprint. The platform's incredible flexibility becomes its performance Achilles' heel. Themes bloated with unused features, plugins that haven't seen an update in years, databases groaning under the weight of accumulated spam and revisions, and hosting environments configured for convenience rather than speed all conspire to frustrate users and damage business outcomes.

The good news is that WordPress performance problems are entirely solvable. Unlike many technical challenges that require extensive resources or complex solutions, most performance gains come from understanding and applying fundamental principles correctly. A well-optimised WordPress site can outperform many custom-built applications whilst maintaining all the flexibility and ease of use that makes WordPress so appealing.

This guide cuts through the noise of conflicting advice and marketing claims to focus on techniques that actually work. Rather than chasing perfect scores in testing tools, you'll learn to identify and eliminate real bottlenecks that impact user experience. Instead of implementing every optimisation you've ever heard about, you'll understand which changes deliver meaningful results and which are simply technical theatre.

The ten sections that follow represent the essential knowledge every WordPress developer needs to build and maintain fast websites. Start with performance testing to understand where you stand, then work through the foundational elements of hosting, caching, and content optimisation. Each section builds upon the previous ones, creating a comprehensive approach to WordPress performance that you can apply immediately and refine over time.

Performance optimisation isn't a destination—it's an ongoing practice that pays dividends in user satisfaction, search engine rankings, and business success. The techniques in this guide will serve you well whether you're rescuing a struggling website or building something new from the ground up.



01. Performance Testing & Measurement

Key Metrics That Actually Matter

Time to First Byte (TTFB) - Server response speed; aim for under 600ms

First Contentful Paint (FCP) - When something first appears; target under 1.8s

Largest Contentful Paint (LCP) - Main content loads; keep under 2.5s

Cumulative Layout Shift (CLS) - Visual stability; maintain under 0.1

Total Blocking Time (TBT) - JavaScript blocking time; aim for under 300ms

Testing Best Practices

Use multiple tools - GTmetrix, PageSpeed Insights, WebPageTest, Lighthouse

Test from relevant locations - Match your target audience's geography

Test mobile performance - Use device emulation with throttled connections

Test both first-load and repeat-load - Measure caching effectiveness

Test logged-in vs public views - WordPress often disables caching for logged-in users

Regular monitoring - Set up automated testing to catch performance regressions

Common Testing Mistakes

Chasing perfect scores instead of real-world performance

Testing only homepage - product pages often behave differently

Relying on single test runs - performance varies by time and location

Fixing every warning blindly - some suggestions can actually harm performance

02.

Hosting & Infrastructure

Hosting Selection Criteria

Managed WordPress hosting over shared hosting for better performance

Server location close to your target audience

SSD storage with sufficient IOPS for database operations

HTTP/2 and HTTP/3 support for improved connection handling

Latest PHP versions (8.0+) for significant performance gains

Built-in caching solutions at server level

Server-Level Optimisations

PHP version - Use PHP 8.0+ for up to 42% performance improvement

OPcache enabled - Reduces PHP compilation overhead

Memory limits - Adequate memory allocation prevents bottlenecks

Database optimisation - Choose InnoDB over MyISAM for WordPress

GZIP/Brotli compression - Reduce file transfer sizes by up to 70%

03. Caching Strategies

Types of Caching

Page caching - Store complete HTML pages for faster delivery

Object caching - Cache database queries and complex operations

Browser caching - Store static assets locally on visitor devices

CDN caching - Distribute content globally through edge servers

Implementation Approaches

Plugin-based - WP Rocket, W3 Total Cache, WP Super Cache

Server-level - Varnish, Redis, Memcached

Hosting-provided - Many managed hosts include optimised caching

Hybrid solutions - Combine multiple caching layers for best results

Cache Management

Cache invalidation - Ensure updated content appears promptly

Cache warming - Pre-generate cached versions of important pages

Mobile-specific caching - Separate cache for mobile devices if needed

User-specific content - Handle dynamic elements that shouldn't be cached

04.

Image & Media Optimisation

Image Best Practices

Choose correct formats - JPEG for photos, PNG for graphics, WebP for modern browsers

Compress before upload - Use tools like Photoshop's "Save for Web" or online compressors

Responsive images - Serve appropriately sized images for different devices

Lazy loading - Load images only when they enter viewport

Image sprites - Combine small icons to reduce HTTP requests

Video & Media Handling

External hosting - Use YouTube, Vimeo, or dedicated video hosts instead of self-hosting

Compressed formats - Choose efficient codecs and appropriate quality settings

Thumbnail optimisation - Ensure video thumbnails are properly compressed

Progressive loading - Use techniques that allow content to load incrementally

05. Database Optimisation

Regular Maintenance Tasks

Remove spam comments and revisions - Limit post revisions to essential numbers

Clean transients - Remove expired temporary data regularly

Optimise autoloaded data - Limit wp_options table bloat

Remove unused plugins/themes data - Clean up leftover database entries

Query Optimisation

Identify slow queries - Use Query Monitor or similar tools

Proper indexing - Ensure database tables have appropriate indexes

Limit post revisions - Control revision storage to prevent database bloat

Pagination - Split large content and comment sections into pages

06.

Code & Asset Optimisation

CSS & JavaScript

Minification - Remove unnecessary characters, spaces, and comments

Concatenation - Combine multiple files to reduce HTTP requests

Critical CSS - Inline above-the-fold styles for faster rendering

Defer non-critical JavaScript - Load scripts that don't block initial rendering

Remove unused code - Eliminate unnecessary CSS and JavaScript

WordPress-Specific Optimisations

Reduce database calls - Replace dynamic calls with static content where possible

Optimise WordPress queries - Use efficient query methods and avoid unnecessary loops

Limit external HTTP requests - Minimise third-party scripts and dependencies

Choose lightweight themes - Avoid bloated themes with excessive features

07.

Content Delivery Networks (CDNs)

CDN Benefits

Geographic distribution - Serve content from locations closer to users

Reduced server load - Offload static assets from your main server

Improved reliability - Multiple servers provide redundancy

Better scalability - Handle traffic spikes more effectively

CDN Selection Factors

Geographic coverage - Choose providers with presence in your target regions

Performance features - Look for image optimisation, compression, and caching

Integration ease - WordPress plugins for seamless setup

Cost structure - Understand pricing models and potential overage charges

Security features - DDoS protection and SSL support

08.

Performance Monitoring & Maintenance

Ongoing Monitoring

Regular speed tests - Monthly performance audits to catch regressions

Real User Monitoring (RUM) - Track actual user experience data

Server resource monitoring - CPU, memory, and disk usage tracking

Uptime monitoring - Ensure site availability across different locations

Maintenance Tasks

Keep WordPress updated - Core, themes, and plugins for performance improvements

Review plugin usage - Remove unnecessary plugins that impact performance

Database cleanup - Regular housekeeping to maintain optimal performance

Backup strategy - Ensure backups don't interfere with peak traffic times

09. Mobile Performance Considerations

Mobile-Specific Optimisations

Responsive design - Ensure themes adapt efficiently to different screen sizes

Touch-friendly interface - Optimise button sizes and navigation for mobile users

Reduced functionality - Consider simplified mobile experiences for complex features

Network condition awareness - Adapt content delivery based on connection speed

Testing Mobile Performance

Device emulation - Test with various device capabilities and network speeds

Real device testing - Use actual mobile devices for accurate performance assessment

3G/4G simulation - Test under realistic mobile network conditions

Battery usage consideration - Optimise for devices with limited processing power

10. Security & Performance Balance

Security Measures That Impact Performance

Firewall placement - DNS-level firewalls block threats before reaching servers

SSL/TLS implementation - Ensure certificates don't add unnecessary overhead

Plugin security - Choose security plugins that don't significantly impact speed

Backup timing - Schedule backups during low-traffic periods

Common Performance vs Security Trade-offs

Update frequency - Balance security updates with potential performance impacts

Monitoring tools - Choose lightweight security monitoring solutions

Access controls - Implement efficient authentication systems

Malware scanning - Use scanners that don't bog down server resources

Quick Reference Checklist

Essential Performance Actions

- ✔ Implement page caching
- ✔ Optimise images before upload
- ✔ Use a CDN for static assets
- ✔ Update to latest PHP version
- ✔ Choose lightweight, well-coded theme
- ✔ Limit plugin quantity and quality
- ✔ Enable GZIP compression
- ✔ Set up database maintenance routine
- ✔ Monitor performance regularly
- ✔ Test mobile performance

Essential Performance Actions

- ✘ Self-hosting large video files
- ✘ Using too many plugins simultaneously
- ✘ Ignoring database maintenance
- ✘ Testing only from one location
- ✘ Focusing solely on perfect scores
- ✘ Installing every “performance” plugin
- ✘ Neglecting mobile testing
- ✘ Using outdated PHP versions
- ✘ Hotlinking prevention not configured
- ✘ Backup processes running during peak hours

Remember: Performance optimisation is an ongoing process. Regular testing and monitoring ensure your WordPress site maintains optimal speed and user experience.

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