instinctools

WordPress Modernization For a Marketing Agency

How modernizing their WordPress website enabled a UAE marketing agency to slash the speed of web page creation **by half** and level up Google PageSpeed Insights score **from 32 to 92** on average, significantly **improving Core Web Vitals** for desktop, such as LCP (from 4.5 to 2 seconds), INP (from 600 to 200 milliseconds), and CLS (from 0.3 to 0.1).

Industry:
Entertainment and Media

WEB DEVELOPMENT

Business challenge

"Set it and forget it" isn't something you can hope for in the digital world. Websites need updates every few years, or they become **slow, clunky, and vulnerable.**

Our client, a UAE marketing agency, learned this the hard way. Their WordPress website hadn't seen an update for almost a decade. A newly set solution coped with 3,000 users per day glitch-free. However, over the years, traffic quadrupled, bringing performance, efficiency, and security concerns to the surface.

- **Performance was tanking,** with Core Web Vitals way below acceptable standards. There was no way to enhance them while maintaining the current WordPress version.
- **The website team was overloaded with manual workflows,** such as software testing, marking up every page from scratch, and managing redirects across 500+ pages to avoid conflicts between the plugins they rely on.
- **The website's security was jeopardized** because of compatibility issues between multiple third-party plugins and the old WordPress version.

Considering all that, the client had a decision to make — modernize their existing website on WordPress or switch to another CMS. With no in-house expertise to weigh their options, they contacted *instinctools.

Solution

Our team started by assessing the as-is state and communicating with the stakeholders to clarify their overall project priorities to map out the most efficient route to the spot-on, well-performing website.

A deep-dive tech assessment uncovered that **website modernization would be enough to tick all the boxes** — no need for a CMS migration. We suggested:

- **Fixing performance issues** by updating the WordPress version, integrating specific plugins to boost website speed, and replacing their current server with one that can handle high loads with minimal resource consumption.
- **Implementing CI/CD and automating UI tasks** with the help of Docker and a WordPress website builder.
- **Honing website security** by reviewing third-party plugins they used and keeping only the ones with regular updates to close security gaps.

With a clear roadmap in place, our team of software and system engineers got to work.

Unlocking quick-wins

The first step was to upgrade the client's WordPress from 4.1 to the latest version, 6.4.2.

This upgrade alone made an instant impact:

- **Automated redirects** instead of manual fixes for every 404 error.
- **New performance-focused plugins,** such as NitroPack, became available.
- **Enhanced security** — a modern WordPress core meant better compatibility with third-party plugins.

Boosting website performance

Moving forward, we took on removing architectural roadblocks on the way to faster page loading time.

Implementing NitroPack plugin

With the latest version of WordPress, NitroPack was finally up for grabs. By enabling smart caching, a built-in content delivery network (CDN), and image optimization, NitroPack gave the site a massive speed boost.

Based on PageSpeed Insights data, our team also optimized the script and style sheets, which had previously contributed to poor performance.

Switching from Apache to Nginx

The client's website initially relied on the Apache server. Its synchronous, process-driven architecture, which implies creating a thread for each connection request, suits smaller sites but becomes an obstacle when they grow.

Therefore, we recommended shifting to Nginx, a server with asynchronous, event-driven architecture that enables multiple connections to be handled within a single process. This server was designed to **manage high loads with minimal memory and CPU consumption,** making it a perfect fit for enterprise-grade corporate websites.

We also integrated NitroPack with the Nginx Helper plugin to additionally increase caching efficiency.

Doubling down on automation

While the WordPress upgrade enabled some automation, it wasn't enough to lessen the burden of day-to-day manual tasks. During the tech assessment, the *instinctools team identified two major areas with the highest potential for automation.

CI/CD implementation

Previously, developers had to manually push every code change from local repositories to GitLab, then deploy it to staging and production.

Our system engineers enabled faster development cycles by establishing a solid and consistent CI/CD pipeline and adopting **Docker.**

UI automation

There're numerous WordPress website builders, such as Elementor, Divi, Brizy, Beaver, Visual Composer, SeedProd, etc., to leverage and simplify creating, editing, and customizing the website pages. We opted for **Elementor Pro** for its high intuitiveness and customizability paired with the broadest range of features.

We accelerated the web page markup process **from 8 to 4 hours** on average by introducing reusable generic blocks, widgets, and shortcodes.

Ensuring smooth integration with the client's software ecosystem

The client's website integrates with various SEO and marketing tools, so we ensured everything stayed intact post-upgrade. The only minor hiccup we had to deal with was caused by NitroPack, which blocked the HubSpot forms from displaying on the website. We resolved it by configuring NitroPack bypass caching for HubSpot-related scripts.

Before

- Overreliance on manual workflows
- Apache server failed to keep up with the growing amount of traffic
- Outdated WordPress version caused security risks
- Limited plugin choices

After

- CI/CD implementation and automation of UI-related tasks
- Nginx server efficiently handles high loads with minimal resource consumption
- Regular updates keep security tight
- Access to a vast pool of plugins compatible with the newest WordPress version

Business value

- **Stable and scalable** CI/CD pipeline
- **Fewer** manual operations
- Core Web Vitals for desktop were significantly improved: LCP **from 4.5 to 2** seconds, INP **from 600 to 200** milliseconds, and CLS **from 0.3 to 0.1**
- Google PageSpeed Insights score raised **from 32 to 92**
- Reduce the speed of web page creation **by half**

Multiplier effect

When performance and security degrade, many businesses assume they need to switch platforms. But in reality, **modernization often delivers the same results with lower costs and fewer disruptions.**

However, this option is not a one-time fix — your solution requires **regular health checks** anyway. We suggest running a tech assessment every three years to ensure your website or app stays future-proof and high-performing, on your terms.

Do you have a **similar project idea**?