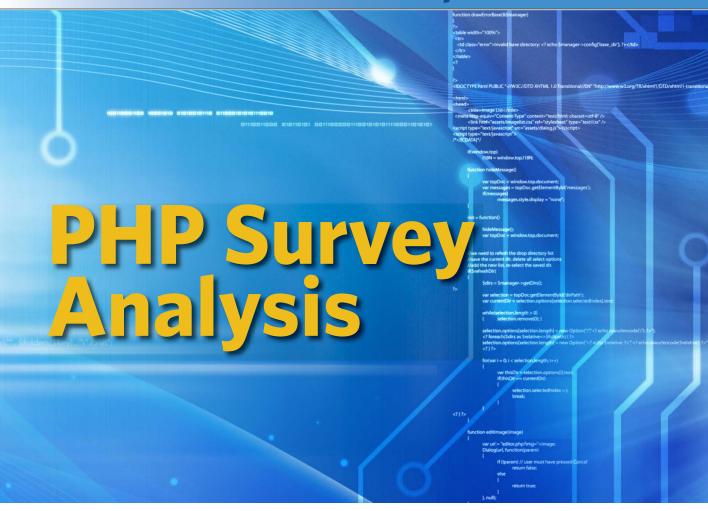
PHP in the Enterprise



An Exclusive Research Report

By Eric Bruno

PHP has been in use since the mid-1990's. Unlike other dynamic languages, its growth and usage has consistently out-paced the hype that often surrounds smaller languages. With popularity that rivals the largest development languages today, PHP is actively being used by companies of all sizes for a wide variety of mission critical and revenue generating applications. Our research shows that PHP not only helps development organizations become more efficient and cost-effective, but that it also has direct benefit to end users in terms of quality and time to market. The key to the success of PHP, according to our research, is the availability of talent and quality frameworks to aid in the process.

Introduction: What Is PHP?

PHP: Hypertext Preprocessor, or PHP for short, appeared in 1995 and is available today as a free software language, available via its own free open-source license. Although originally built as a way to dynamically generate Web pages and applications, PHP has evolved significantly over time. When combined with a development framework, PHP can be used to quickly and efficiently build GUI-based rich Internet applications, which address a wide variety of application needs. In fact, companies such as Facebook credit a lot of their success and development agility to PHP alone.

This paper covers the state of PHP development based on a recent survey conducted by UBM TechWeb of IT managers and decision makers who are actively using PHP to develop at least one application, or planning to develop with PHP soon. Of those who responded to this survey of UBM TechWeb's qualified database of business technology decision makers, a total of 232 were





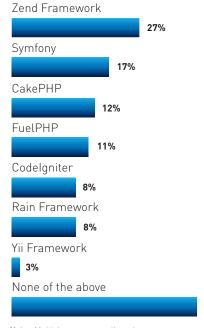
executives, managers, or architects, many of whom work at large companies. The survey results were broken down into the following discussion points:

- Who is using PHP? The roles and responsibilities of the survey respondents, the size of the companies they work for, and so on.
- **How is PHP being used?** The quantity and types of applications being built, the size of the applications in terms of server footprint, and future plans.
- What is PHP development like? The processes, tools, and frameworks used, development goals, and comparisons to other languages.
- Challenges and benefits? The challenges PHP developers face, how PHP helps to overcome these challenges, along with the challenges and benefits of being a PHP application developer and user.

In addition to high performance and quality, PHP development benefits include the many frameworks of re-useable components available to improve developer efficiency. In our survey of organizations using PHP, or planning to use PHP, almost 60 percent chose to use a PHP framework for their application. Of those, more than one-quarter chose Zend Framework. (See Figure 1)

Given that Zend Technologies' co-founders developed the foundation for PHP 3 and the runtime engine powering PHP 4 and 5, this is no surprise. Here we explore the

Figure 1. Which of the following PHP frameworks do you use for your applications?



Note: Multiple responses allowed

Data: UBM TechWeb Survey of 232 executives, architects or development managers actively using PHP or considering building apps using PHP, May 2012

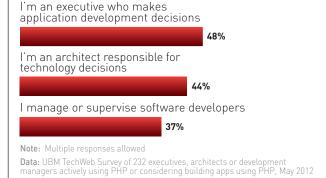
42%

survey results to get an accurate view of the state of PHP in corporations today.

Who Is Using PHP?

Of those who responded to the UBM TechWeb survey on PHP development, a total of 232 were executives, managers, or architects. The specific roles of the respondents in their respective organizations break down this way. (See Figure 2)

Figure 2. Which of the following describe your job responsibility?



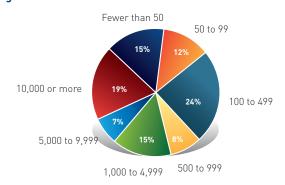
Of the 232 decision makers, 50 percent (117) are actively using PHP to build applications, while the remaining 50 percent (115) are planning to use PHP in the future. As for organization size, 41 percent of those surveyed work for companies with more than 1000 employees, and nearly 20 percent work for a company with more than 10,000 employees. These are both impressive numbers, indicating

In fact, of those decision makers currently using PHP, an even higher percentage (21 percent) work for a company with at least 10,000 employees. The full set of results for those already using PHP is shown previously.

that PHP is currently in use or being planned for use in

Figure 3. How many employees are in your organization in total?

large, name-brand companies. (See Figure 3)



Data: UBM TechWeb Survey of 232 executives, architects or development managers actively using PHP or considering building apps using PHP, May 2012

In terms of PHP development team location and distribution, more than 80 percent said they are co-located, while the remaining 20 percent-or-so said their developers are mostly remote. While this may initially indicate that PHP teams work best together, it would follow that PHP processes and tools, especially those that are cloud-based, provide enough online collaboration to make remote development work as well.

It's important to watch this trend as time goes on, especially if PHP talent gets harder to find. While Zend Technologies estimates that there are currently more than five million PHP developers world-wide, the demand for PHP developers is growing faster than any other server-side development language. There are currently nearly 25 million web sites running PHP, including such high-profile sites as Facebook, Wikipedia, and Yahoo. Additionally, comparing job trend data to other Web scripting languages, PHP could be ranked as the most popular Web language today.

Here's a look at the results from this survey that illustrate how PHP is being used, or planned to be used, in these organizations.

How is PHP Being Used?

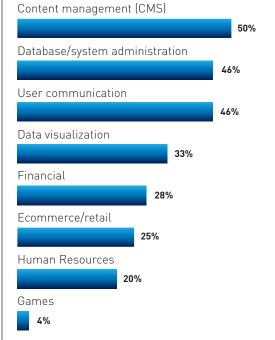
The survey results show that many organizations and developers are accomplishing important tasks with PHP, with many critical applications already built and deployed on PHP. For instance, in our survey, 60 percent described their PHP applications as revenue generating, or critical in nature, while only 15 percent described them as being used for non-critical purposes. For those planning to use PHP in the future, only 13 percent described their planned PHP application as non-critical in nature.

To further prove this point, many of those surveyed were building a financial, e-commerce, or retail application. These are specific examples of critical applications with strict quality requirements, and direct fiscal impact. Overall, however, we found that the types of applications being built with PHP are well distributed (from database systems to games) proving how diverse and reliable PHP can be. (See Figure 4)

Another survey question strengthened the conclusion of how diverse PHP is, adding that PHP is being used in growing sectors, i.e. mobile application support. These are the results for the types of applications respondents have developed with PHP. (See Figure 5)

As for those considering PHP for future application development, the numbers are still well distributed. In summary, these results prove that PHP is not limited to a sub-section of application development, or limited in terms of quality. Instead, PHP is enabling development organizations to build critical applications of all shapes and sizes.

Figure 4. What kinds of functions do your PHP applications serve?



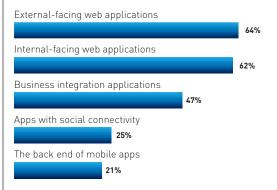
Note: Multiple responses allowed

Data: UBM TechWeb Survey of 232 executives, architects or development managers actively using PHP or considering building apps using PHP, May 2012

Diving deeper into the business goals of the organizations building PHP applications, we get the following results. (See Figure 6)

Almost 40 percent of those surveyed indicated their primary business goal is to increase efficiency, while nearly 50 percent indicated that customer growth and improving the customer experience were their primary goals. This overwhelming statistic indicates that the use of PHP offers real benefits to the users of these applications as well. When

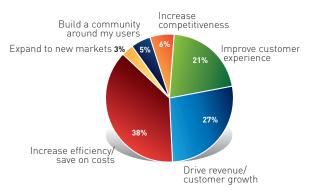
Figure 5. What type of application(s) have you built with PHP?



Base: 117 respondents who are actively using PHP

Data: UBM TechWeb Survey of 232 executives, architects or development managers actively using PHP or considering building apps using PHP, May 2012

Figure 6. What are the primary business goals for your applications?



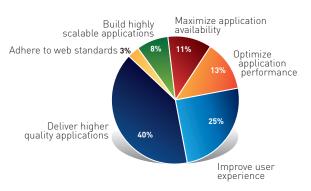
Base: 117 respondents who are actively using PHP

Data: UBM TechWeb Survey of 232 executives, architects or development managers actively using PHP or considering building apps using PHP, May 2012

combined with another survey question about development process goals, the value of PHP to the user is further strengthened. (See Figure 7)

The majority of those who chose PHP did so to deliver higher quality, an improved user experience, and optimal application performance, all while saving costs with increased efficiency. These statistics combine to prove that choosing PHP provides tangible benefits to both development organizations and their customers (the application end users, in this case).

Figure 7. What is the most important goal for your application development process?



Base: 117 respondents who are actively using PHP

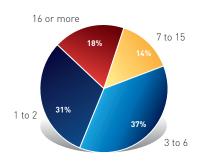
Data: UBM TechWeb Survey of 232 executives, architects or development managers actively using PHP or considering building apps using PHP, May 2012

To quantify the amount of impact PHP has had on organizations and their customers, we asked how many servers were used to host the respective PHP applications. The results show that applications of all sizes and hosting requirements have been, or will be, built with PHP. The results roughly indicate that the applications are relatively large, with more than 30 percent of them hosted on 7 or more servers (physical and/or virtual). Further, nearly 20 percent

are hosted on 16 or more servers. Here is the complete breakdown. (See Figure 8)

In terms of future plans, an overwhelming 97 percent of those organizations that are actively using PHP plan to use it for future application development. This lines up with other statistics showing that PHP ranks up among the

Figure 8. How many servers (virtual or physical) are used to host all of your PHP applications?



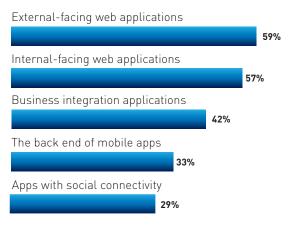
Base: 117 respondents who are actively using PHP

Data: UBM TechWeb Survey of 232 executives, architects or development managers actively using PHP or considering building apps using PHP, May 2012

top server-side development languages in use today. As for those who have evaluated or are evaluating PHP for future development, 96 percent plan to go ahead with PHP. This is a strong statistic alone, and it says a lot about both the success and growth of PHP in the market. Here are the results from this survey question. (See Figure 9)

For those evaluating PHP, 92 percent intend to release at least one application within the next 12-18 months, with 61 percent saying they intend to release at least two or more applications in the same time period. For those already

Figure 9. What types of PHP applications are you planning to build within the next 12 to 18 months?



Note: Multiple responses allowed

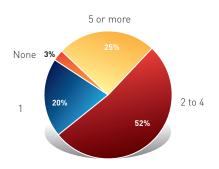
Base: 117 respondents who are actively using PHP

Data: UBM TechWeb Survey of 232 executives, architects or development managers actively using PHP or considering building apps using PHP, May 2012

using PHP, the figures are even higher. (See Figure 10)

Looking deeper at the results, we see that growth areas, such as mobile development, indicate growth for PHP as well. Additionally, organizations are confident enough in PHP to plan a growing number of external facing (customer-facing) facing applications built on the PHP platform. One final observation: The types of future PHP applications organizations plan to build are diverse and well distributed. We continue to see that PHP use is quite varied, and isn't limited in its applicability.

Figure 10. How many PHP apps do you expect to release or upgrade within the next 12 to 18 months?



Base: 117 respondents who are actively using PHP **Data:** UBM TechWeb Survey of 232 executives, architects or development managers actively using PHP or considering building apps using PHP, May 2012

What is PHP Development Like? (or The PHP Development Experience)

In this section, we explore the results of the survey that aim to describe the PHP development experience, from processes to tools. For starters, we asked organizations to select their most-used language after PHP, and it came as no surprise that more than 40 percent chose Java.

However, the key takeaway here is that PHP was the clear choice among dynamic languages, with Ruby and Python being chosen less than 10 percent of the time as an alternative to PHP. While some languages tend to be hyped in the media from time to time, PHP has been around since 1995, and remains a rock-solid choice among organizations.

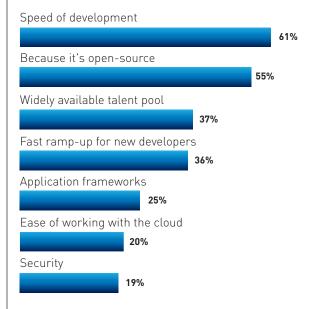
We asked decision makers what the most important goal was for their development process. The winning response, chosen by 33 percent of the respondents, was to develop higher quality applications. For organizations that are actively using PHP, this choice jumps, to 40 percent. The next reason was to improve the user experience (24 percent), again indicating that choosing PHP has a direct benefit to the end user.

PHP has a reputation of being easy to learn and to use, which leads to decreased ramp-up times and increased productivity. The results of this survey prove this. For instance,

when asked for the main reasons the organizations choose PHP as a language option, more than 60 percent of the respondents chose speed of development. The percentage was even higher for those who had already deployed software with PHP, with almost 75 percent agreeing that speed of development motivated them to choose PHP.

Looking at the full set of results, we see that the availability of programming talent is another strong reason to choose PHP. With more than five million PHP programmers active globally, the demand for PHP remains strong and is likely to grow. (See Figure 11)

Figure 11. What are the main reasons you choose to develop in PHP?



Note: Multiple responses allowed

Data: UBM TechWeb Survey of 232 executives, architects or development managers actively using PHP or considering building apps using PHP, May 2012

Although speed of development and fast ramp-up time rank high on the list of reasons to choose PHP, the high percentages across all answers indicate how varied the reasons to choose PHP are. The availability of frameworks and the ease of working with the cloud (another growing area) rank as the main reason for about one-quarter of all respondents.

Diving deeper into frameworks, when asked to choose which frameworks were chosen or considered for PHP development, the clear winner was Zend Framework. Here are the full results for all survey takers. (See Figure 1)

For those that had already deployed a PHP application, Zend Framework was the leader, chosen about 30 percent of the time. This survey showed that half of those using a framework were using Zend Framework, but other data using larger sample sizes indicate this statistic may be as high as 75 percent.

Looking at the final choice, None of the above, we see an alarming statistic that nearly half of the survey takers were not considering or actively using a PHP framework. This indicates that there's a large opportunity for the PHP community to continue maturing, as the measured strengths of choosing PHP (i.e. speed of development, quality) would likely increase with the use of a framework, which provides time savings through the use of replicable code, and leverage of known best practices.

What Are the Challenges and Benefits of PHP **Development?**

In this section, we'll look at the survey results to get a picture of the challenges PHP developers face, how PHP helps them overcome these challenges, and get an honest and accurate view of the benefits and challenges of choosing PHP as a platform. Although some of this has been explored above, we get a clearer view here of the benefits of PHP to the development organization, the developers themselves, and the end users (customers).

We asked decision makers what type of general application problems they experience most often. More than 50 percent of the time, the choice was business logic bugs or performance related issues. For active PHP developers, infrastructure, security, and deployment errors were minor, each ranking at or below 10 percent.

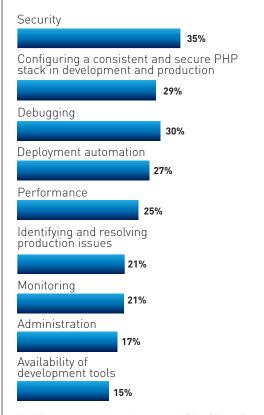
When asked how much time was spent resolving these problems, about half of the respondents said it consumed 10 percent, while one-quarter indicated it was less than 10 percent. Nearly all of the remaining quarter indicated it consumed 25 percent of their time.

Looking closer at the challenges, we asked decision makers to rank their top challenges when developing PHP applications. The full results are below. (See Figure 12)

Respondents were asked to rate on a 5-point scale how great a challenge various items were when building applications with PHP. It's alarming to see that about 30 percent found it difficult to maintain a secure PHP stack. Additionally, security ranks highest among the challenges.

However, security is ranked even higher as a challenge for those who are only considering PHP as a platform. This indicates that security is a challenge in of itself, regardless of platform. It's important to note that there are PHP frameworks and tools that help meet these challenges head-on. Most modern PHP frameworks provide built-in security best practices for application development, including the widely popular Zend Framework and Symfony. This alone strengthens the argument that PHP, its available tools, frameworks, and talent pool equip organizations to meet their biggest challenges more than any other platform.

Figure 12. How much of a challenge do each of these present when developing PHP applications?



Note: Percentages reflect combined scores of "4" or "5" on a 5-point scale where 5 was a "very big challenge.

Base: 117 respondents who are actively using PHP

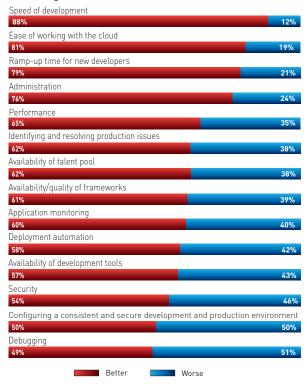
Data: UBM TechWeb Survey of 232 executives, architects or development managers actively using PHP or considering building apps using PHP, May 2012

The results from the next question appear to confirm this conclusion. We asked decision makers to rate PHP as better or worse at meeting a set of general development challenges. The results matched well with the results of other survey questions, and were strongly in favor of PHP in the areas of development speed, the cloud, performance, security, and talent. (See Figure 13)

The strong PHP results across all of the categories indicate that PHP development doesn't have too many issues. The results from organizations that have already deployed PHP strengthen this. Active PHP developers ranked PHP even higher for these challenges. (See Figure 13)

The worst-ranking figure (and the only one with a negative rating), debugging, is directly addressable with the right tools, for which there are many available in the market. However, it's fair to balance this figure with the fact that 88 percent also said that PHP improves development speed when compared to their next popular language.

Figure 13. Compared with your next most-used language, is PHP better or worse at each of the following?



Base: 117 respondents who are actively using PHP Data: UBM TechWeb Survey of 232 executives, architects or development managers actively using PHP or considering building apps using PHP, May 2012

Conclusion: The State of PHP

The survey results from decision makers in the software development community, as administered by UBM TechWeb, have shown a pervasive usage of PHP in large companies, many positive benefits and no troubling issues for PHP development today. This paper outlines the results of the individual questions, and a summary of the conclusions, both positive ones and those that indicate areas for improvement, are listed below:

- PHP is pervasive among large enterprises.
- PHP has moved well beyond a specific-use language it is applicable and in use today across a wide variety of application types.
- Organizations are relying on deployed PHP applications to generate revenue or to manage critical processes.
- PHP is increasingly being used for both customerfacing and internal applications.
- PHP is being used in growth areas, such as mobile application support,
- PHP has direct benefit to end-users, as the resulting applications are of higher quality, and are updated or enhanced more quickly.

- PHP developer talent is readily available and abundant.
- Organizations benefit from faster development cycles, increased efficiency and reduced costs when building and deploying applications on PHP.
- Of those surveyed, nearly all who have deployed PHP applications are planning to continue or start new projects with PHP in the future.
- While interest in other dynamic languages may rise and fall, PHP has remained rock solid, and is exhibiting growth.
- Half of the organizations surveyed could benefit further through the use of frameworks.
- As PHP development grows, a shortage of programming talent may arise.
- Some areas, such as security and ease of debugging, remain a concern even for companies actively using PHP.
- There may be a need to raise awareness of tools, frameworks and services available to organizations considering PHP development.

The areas of improvement listed above suggest many opportunities for organizations and vendors working with PHP now and in the future. Fortunately, an active ecosystem of vendors and service providers exists — with, Zend being one of the larger and more experienced ones — that offer support and promote the free and open source spirit of PHP development. As a result, PHP developers and organizations are a growing, tightly knit, professional community.

About Zend

Zend partners with businesses to rapidly deliver modern apps across mobile and cloud. Founded in 1999, Zend helped establish the PHP language, which today runs more than one-third of the world's Web sites. Today, Zend is the leading provider of software and services for developing, deploying and managing business-critical applications in PHP. Zend's awardwinning PHP solutions including Zend Server and Zend Studio are deployed at more than 40,000 companies, including NYSE Euronext, BNP Paribas, Bell Helicopter, France Telecom and other leading brands worldwide. Learn more at www.zend.com.



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