

Byng Systems - releasing the power of information with Zend

Client:	Byng Systems
Project:	SportEngland Website
Geography:	UK
Industry:	Web/technical agency
Challenge:	To create a high availability , online coach management, evaluation and monitoring system for Sport England.
Solution:	Zend Platform



Byng Systems needed a reliable means of streamlining their server monitoring. They chose Zend Platform for its realtime reporting, its performance tuning features, server-load balancing and for the overall code optimisation provided by Zend Platform.

Overview

Byng Systems is a London-based technical agency, specializing in the development of enterprise web applications and on-line systems ranging from e-commerce sites to large scale information structures, powering projects deployed in both the public and private sectors. They also provide web service APIs for third-party data consumers, allowing access to data warehouses and the monitoring and evaluation of information stored on their systems. Byng Systems' client base covers a wide range of organisations whose business depends on their mission-critical online applications. Byng Systems deliver solutions which are vital to their clients' day to day work; be they web portals for sales, recruitment services, travel booking, mailing/on-line tracking services, or general office system applications.

The development team at Byng Systems pride themselves on delivering web-based software that is stable, mature and reliable.

Byng Systems and PHP

From their very early days, Byng Systems chose to work with PHP for several reasons: the team already possessed shared knowledge about PHP, both in terms of its underlying architecture and the range of libraries available, as well as the fact that it is a free language which is easy to deploy. As Martin Hewitt, Founding Partner of Byng Systems, explains "PHP reacts well when programming best practice is applied to it – particularly PHP5 - implementing type hinting and method and property visibility." Other major reasons for choosing PHP include the speed at which a new server can be deployed (typically a PHP based web application can be developed with the LAMP stack far faster than with other programming languages), the reactive support for the language provided by the PHP development community, the language's extensibility, platform neutrality, its object-oriented programming possibilities and its stable core functionality. Today PHP is the main programming language used by Byng Systems.

The challenge



"To be able to deploy a site and know that the Zend Platform is constantly monitoring errors, telling us when something's gone wrong, and that it is perpetually profiling the application provides great peace of mind."

Martin Hewitt,
Founding Partner Byng Systems

Byng Systems' client "Sport England" the government agency responsible for developing community sports systems within the UK, required a stable, reliable online coach management, evaluation and monitoring system with a guaranteed level of high availability.

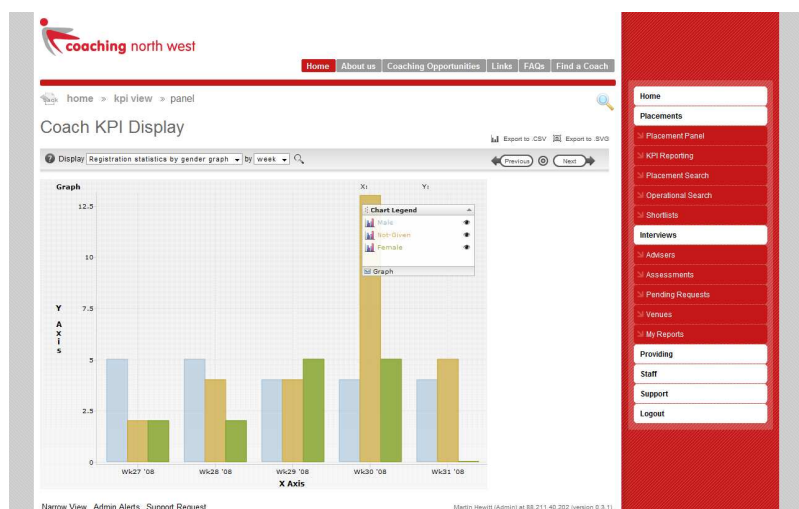
One of the biggest challenges facing Byng Systems for this project was that of ensuring the system's high availability. The SLA (service licence agreement) for this application guarantees 99.9% availability. In such conditions, where the "Myth of Nines" is particularly apparent, time is of the essence when it comes to error detection.

Another challenge facing the team at Byng Systems was that of educating their client, Sport England, and the various other stakeholders in this project, on how best to handle migration from an information-poor environment to an information-rich one i.e: how to manage and organise the relative overload of information and the resulting changes this would make to their work processes.

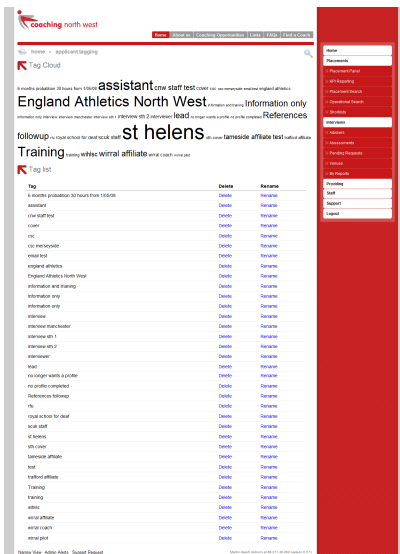
For Byng Systems this meant rapidly gaining in-depth knowledge of the existing mechanisms used to develop sports and sport coaches in England, the associated funding structures and the goals for the system within the Key Performance Indicators set by the various funding boards and governments. This investment on their part is typical of the commitment Byng Systems brings to each project they work on.

The Solution

For this project, Byng Systems turned to Zend and the Zend Platform. Their initial reason for considering the Zend Platform was its integration with PHP, (Byng considered that PHP and Zend were synonymous) however, the proactive error handling and notifications, soon became key deciding factors: "Error handling is paramount to high availability applications and is key to building reliable, trusting relationships with clients. Much of our applications is already stress-tested and uses well-exercised code, but the ability to have an instant notification when an error occurs, complete with environment variables and a stack trace, is incredibly useful. Issues with trying to replicate bugs are diminished simply by having this information available easily," says Martin Hewitt.



The "CoachWeb" application developed by Byng Systems for Sport England



The “CoachWeb” application developed by Byng Systems for Sport England.

CoachWeb

Zend Platform was configured to send its error reports directly into Byng’s own bug tracking system, so that each error identified by Zend Platform would automatically be considered a bug. A developer at Byng Systems would then accept the bug, replicate it and fix it. “Use of Zend Platform meant we were able to see and respond to issues quickly, sometimes before the client became aware of their existence, adding value to our client relationship and helping to maintain a stable system” says Mr Hewitt. “Four periods of 5 minutes downtime over the course of a day really impacts the user experience, far more than being down for 20 minutes in one go, so it’s important that we can respond quickly to “brownouts”. Zend Platform provides error alerts by email and SMS so that vital minutes can be gained in error resolution.

The development team for this project was made up of 11 people: 1 project manager, 2 developers, 2 user interface developers, 1 graphic designer, 2 QA testers, 2 client account contacts, 1 Byng Systems administrator, and the whole project took just three months to complete.

Overall Byng Systems estimates the Zend Platform has helped save both time and money. “With the install stack we save time on the installation and version checking with a standardised install. We estimate this to be 1 day per server.” Taking into account development time, system administration and bug related support, Mr Hewitt estimates that overall savings could amount to up to \$21,500 per year, for Byng Systems thanks to the Zend Platform. “Without the Zend Platform we would need to run a customised and maintained monitoring system and error handlers. We would estimate that Zend Platform saves us 10 - 15 days development per year.” He also estimates an approximate increase of 40% in terms of performance in their applications using Zend Platform compared to non-Zend Platform applications.

However, it is really for the quality of the application they can provide that Byng recommends Zend Platform: “The Zend Platform enables us to provide a much higher quality of service” he says. “It has helped us improve our relationships with our clients immeasurably, and also given us a greater insight into our own code, which is always interesting!”

Byng Systems’ estimated annual savings with Zend Platform :

- **15 days development = \$12,000**
- **5 days system administration = \$2,500**
- **5,000 bug related tickets est. 1 min saved per ticket**
14 days support (\$500 / day) = \$7,000

Total savings **\$21,500**

For further information about Byng Systems visit www.byng-systems.com



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