



# 4D APPLICATION PERFORMANCE

CASE STUDY : 04/2011



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## The challenge of Java performance management at Betfair

Based on an interview with Andrew Mulholland, Application Delivery and Support Manager, Betfair



Since pioneering the concept of the betting exchange in 1999, Betfair has grown rapidly to become one of the largest online betting companies in the world with more than three million customers.

To put the scale of Betfair's operation into context, it processes more than five million transactions (such as placing a bet) every day and handles over seven billion page views every week, which is more than all European stock exchanges combined. Plus, Betfair needs to be available 24 hours a day 7 days a week – which is no small challenge.

Betfair's growth has relied on both innovative products and the ability to provide a great – and fast – online experience for its users, with 99.9% of bets completed in under a second – so performance is taken very seriously.

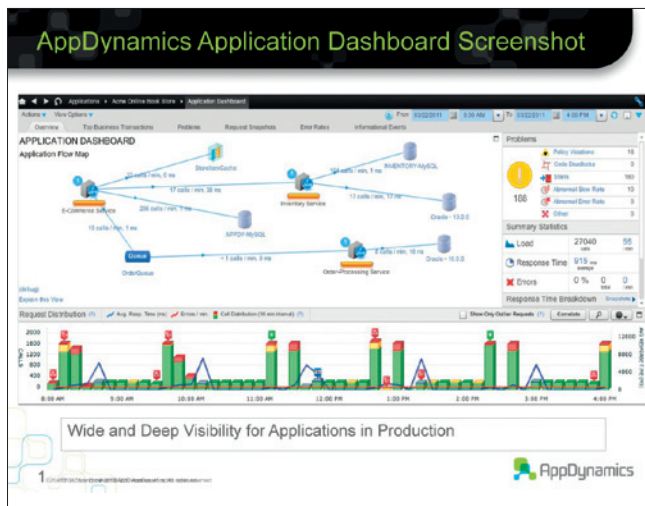
Application Performance has a long-standing relationship with Betfair and was pleased to introduce AppDynamics technology as an innovative new way to safeguard and improve website performance for end users, by optimising the many underlying Java application servers and how they interact with back end databases.

*“We now implement more changes in a month than we used to in a year..”*

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## AppDynamics has quickly delivered three key benefits:

- Reliability is key to customer confidence, Betfair revenue and, potentially, the business's reputation in the industry and even its share price. AppDynamics reduces the chances of an outage and minimises the impact of any that does occur, by ensuring a rapid fix.
- AppDynamics is helping Betfair improve quality and release more enhancements to customers more quickly; inevitably, this leads to happier customers and more competitive offerings by Betfair in an increasingly-competitive market place.
- AppDynamics has also given Betfair the opportunity to get more done in less time, with significant efficiency improvements and cost-saving benefits.



## Why Betfair needed a solution?

Andrew Mulholland, Betfair's Application Delivery and Support Manager, described the new development environment they are implementing across the business.

*"Betfair is moving to a 'high performance code' culture to de-risk our increasing rates of change. In the past, our developers (both internal and external) wrote applications and the Betfair performance team load tested and made specific tuning recommendations. This approach works for a small number of 'large' releases but is not effective for large numbers of 'small' releases as was more usually the case for us.*

*"The continual pressure to deliver a larger number of smaller changes means that performance considerations need to be part of everyday life - with developers being able to continually test and tune their own code to catch and resolve more performance problems before they get to pre-production load testing.*

*"We have introduced a new approach to development and we now implement more changes in a month than we used to in a year, both to offer customers more of what they need and to meet more and more market opportunities."*

*"Betfair operates in a competitive market that demands support for high transaction loads, sub-second response and constant innovation. AppDynamics was designed from the ground up to manage mission-critical apps that are highly distributed and agile. This makes AppDynamics and Betfair a perfect fit for one another."*

Jyoti Bansal, Founder and CEO AppDynamics

## Why AppDynamics?

AppDynamics as a business showed its willingness to listen to and implement Betfair's enhancement requests. This built confidence that AppDynamics would not only fit the need today but continue to support future needs. And, in terms of the AppDynamics product, there were considerable advantages to Betfair.

Betfair had been looking for a java monitoring solution that could trace transactions across multiple application tiers for several years. Betfair had already reviewed at least five products in detail prior to selecting AppDynamics and had even considered developing its own solution. The team was therefore very well educated about the market and saw the potential offered by AppDynamics as soon as Application Performance introduced the product to them.

So what were the major reasons why Betfair selected AppDynamics?

- **Low overhead / low latency:** Betfair wanted a product that had both low CPU overhead on servers and added very low additional latency to transactions being monitored. By meeting these requirements it meant that the AppDynamics could run everywhere, even on Betfair's most stressed application servers.
- **Security:** Betfair operates in a highly-regulated industry and has to be highly sensitive regards access to customer data. AppDynamics' architecture easily met Betfair's requirements. AppDynamics has been configured to monitor just performance data and not gather user data (which is vital). This meant that AppDynamics could be freely deployed across the business, to anyone that needs to understand performance and its impact on the business.

- **Ease of use, usability of data and ease of deployment:** To avoid the risk of AppDynamics becoming 'shelf ware,' Betfair needed to confirm it was easy to use and hence could be widely adopted. The performance team built a number of test scenarios (each with unusual performance problems) that had previously caught them out and asked colleagues from other teams to use AppDynamics to investigate and problem solve. In all cases, and after only an hour's training on AppDynamics, all scenarios were successfully resolved.

The result? After only three months of use, AppDynamics has been deployed to 100s of applications in record time; Andrew Mulholland describes the growing use of AppDynamics throughout Betfair as 'contagious'.

*"I am continually surprised who is using the product. It's not just technical people either ... the more we use it the more we realise it can do for our business."*

*"I am continually surprised who is using the product. It's not just technical people either; the dashboards have been used on Betfair TV (our internal 'what's going on within Betfair' web portal) to show real-time information, such as the rate of bets being placed during Cheltenham. AppDynamics has provided us with both instant value, because of its highly-intuitive interface, and real depth. The more we use it the more we realise it can do for our business."*

## Betfair working closely with Applications Performance

Betfair has had a strong relationship with Application Performance for many years, having already deployed their DBTuna database monitoring solution enterprise wide for Oracle, SQL Server, MySQL and NetApp storage.

*"I'm delighted that we've been able to meet Betfair's requirement for a comprehensive performance management solution across Java and database tiers by integrating AppDynamics with DBTuna"*

Jyoti Bansal, Founder and CEO AppDynamics

*"We greatly appreciate Application Performance's openness to partner and willingness to implement our enhancement requests. Betfair has a desire to implement end-to-end application monitoring, so that a standard set of tools can be used across all applications and data centres worldwide, and we have been very pleased with Application Performance's support in helping us to achieve that goal,"* commented Andrew Mulholland.

*"By having a standard set of tools, we will be able to ensure a standard approach to performance management across the 100s of applications our customers rely on and throughout all stages of application development."*

This requirement matches Application Performance's vision for its 4D (4 Dimensional) end-to-end application monitoring and acceleration solution. Two of the four components of 4D are DBTuna and AppDynamics which have been integrated to work closely together.

### Initial benefits seen from the deployment of AppDynamics

After only three months, AppDynamics is already adding considerable value to Betfair's business operations:

For example, a number of challenges followed a recent data centre migration, which were not apparent in the old data centre. AppDynamics was used to quickly find the problem and lead to the root cause. Operations were able to send a link from within AppDynamics, as well as a screen shot of the problem to the development team for that application, so they could see the problem and put a fix in place.

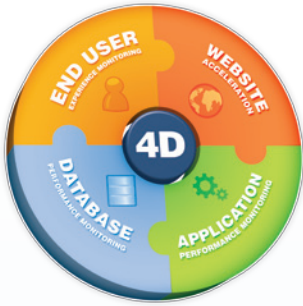
*"AppDynamics has drastically reduced the time taken to do this process"* said Andrew Mulholland.

AppDynamics is also helping Betfair to predict future server capacity requirements, which means that Betfair will be able to more closely match server capacity to the needs of customers, avoiding the need to over-provision. In this way Betfair will be able to keep costs under tighter control, as well as minimising its use of power, enabling it to meet its Green IT commitments.

*"In the immediate future, we will continue to roll out AppDynamics and DBTuna across more and more applications and teams as they have become the foundation of our application performance monitoring,"* concluded Andrew Mulholland.

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