

Case Study



Aetna optimizes performance and scalability by adopting post-production performance engineering approach

Abstract

Aetna partnered with Infosys to optimize the performance and address scalability issues of the WorkAbility® application. The key objectives of the engagement were to find the major performance bottlenecks with an aim to optimize response time and make the application scalable to accommodate future growth. Adopting Infosys's DdIR (Discover, define, Isolate & Resolve) framework for post-production performance engineering, it was able to improve the response times on an average by 21%, and save on infrastructure cost.

The Client

Aetna, a Fortune 100 company, is a leading provider of managed healthcare benefits, indemnity healthcare benefits, and dental, pharmacy, vision and group insurance, and life and disability benefits. It specifically targets small, midsized, and large multi-site national employers, individuals and Medicare and Medicaid beneficiaries in certain markets.

Background

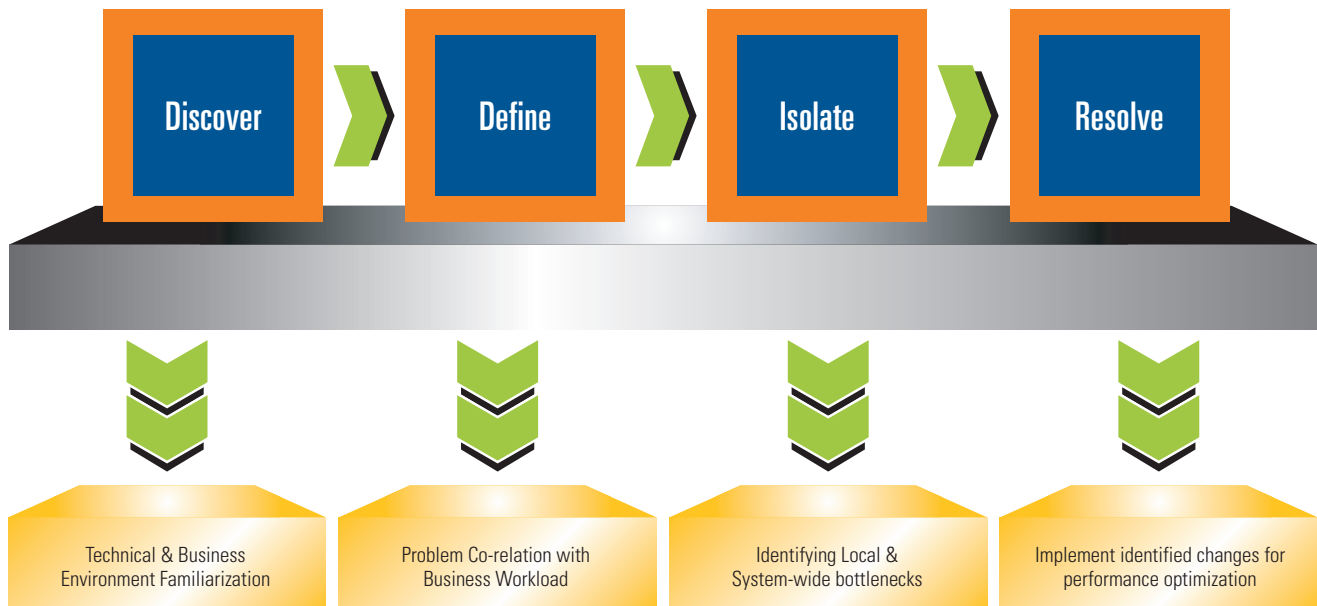
WorkAbility® is an industry leading claim and absence management system providing a one stop solution for disability and absence management and gives online access to the complete information. WorkAbility® is a .NET based Web application used by Aetna internal and external users. The performance of the application was impacting the users as screens took large amount of time to load and also complete the operations.

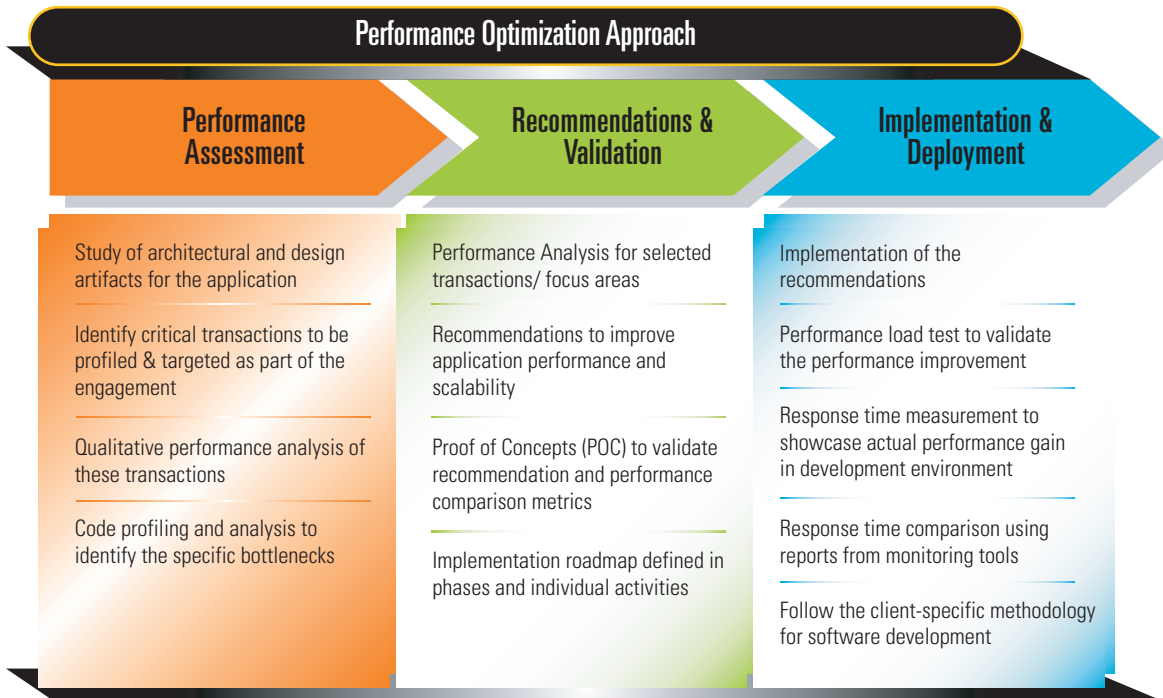
Aetna and Infosys collaborated to do a pro-active and holistic performance engineering engagement for WorkAbility® application with the following key objectives in mind:

- Reduce the average response time of pages by 20%
- Address the scalability issues of the application
- Accommodate future growth with the existing infrastructure resulting in saving on infrastructure cost

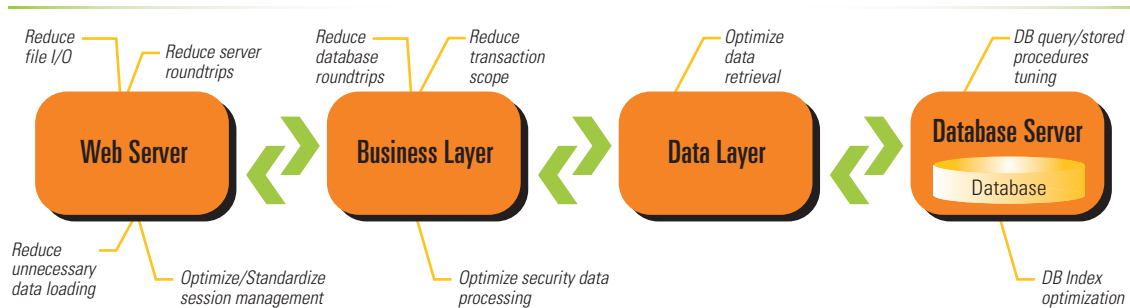
Infosys' Solution

As part of the engagement, Infosys used the DdIR (Discover, define, Isolate & Resolve) framework, widely used for postproduction performance engineering, to identify bottlenecks and provide recommendations.





Summary of implemented changes for performance and scalability enhancements



Benefits

Performance gain: Implementation of the recommendations resulted in a 21% average improvement in the response time of pages within the scope of the project when it is measured as with respect to the number of user visits to the page, where a visit is a series of actions that user does during a particular session. The average response time gain is 28% for the pages when measured with number of times the user views those pages.

Saving in response time: Cumulative savings of 16 hours of application response time per day.

Cost saving: Improved response time result in users being able to complete each task faster and hence cater to more number of requests than earlier. That implies volume of work due to immediate business growth can be accommodated by existing staff and eliminates the requirement to recruit new staff and hence saving in cost. Also the tuned transactions resulted in a saving of infrastructure resource. **Throughput:** Scalability improved to accommodate immediate growth in business without swelling existing infrastructure resources.

Technology Highlights

- Microsoft .NET Framework 2.0
- ASP.NET AJAX
- Oracle Database
- SQL Server for session state management

Client Testimonials

Craig Doering, Sr. Application Development Manager

Yes, nicely done. The improvements exceeded the expectations set forth in the contract providing a clear cost effective benefit to the business.

It is an excellent example of how partnering with a fixed price contract coupled with a performance guarantee can both benefit Aetna and Infosys.

Daniel Mccutcheon, Senior Architect

The performance improvement project was a true collaboration effort between Aetna and Infosys. The Infosys methodology was executed flawlessly and was one of the keys to the success of the project meeting its deliverables. The performance benefits achieved have allowed the WorkAbility® system to better position itself for the continued growth of the Disability and Leave of Absence business.

Shaun Reehl, Application Development Manager

The implementation .NET / SQL Server session management within the WorkAbility® web application is a huge step forward for the application as a whole. Infosys and Aetna were successful at this large initiative due to the collaboration and knowledge shared by project team members. The Infosys team lead did an excellent job communicating, made significant technical contributions to the project and demonstrated a very strong work ethic that in the end made this project a success.

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Reputation Institute's Global Reputation Pulse 2009 ranked Infosys among the world's top 50 most respected companies.



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