

Benefits of using Microsoft ASP.Net technology for Software Product development



Introduction

In the era of internet, technology has become the backbone of individuals. Organizations today look forward to next-gen products, to be agile, cost-effective, and highly productive. Next-gen products must be highly scalable and flexible to meet various customer requirements.

Plus customers want quicker deployment of product. In such competitive environments, Rapid Product Development is required. A robust framework like ASP.net comes into play and truly supports complex product development environments. ASP.net provides a comprehensive framework to develop highly functional products.

¹ Misys Veracity product using Microsoft Visual Studio® 2008 SP1 and the Microsoft .NET Framework 3.5 SP1, the Misys-Veracity team created FreeNatal, *“By taking advantage of these powerful technologies, the team increased development speed by 60 percent, enabling accelerated market delivery and further strengthening their respective positions in the healthcare informatics industry- Case study Microsoft .NET Framework 3.5”*

Asp.Net: Robust Developmental Framework

Asp.net is the primary Microsoft development framework for building enterprise-grade products. ASP.net supports CSS, JavaScript and server scripting to develop highly intuitive and responsive technology products. The unified framework allows developers to build both web-based and on premise products.

² *According to Forrester Research reports that .Net is more dominant at companies with less than 5,000 employees.*

³ *With Asp.net becoming more open source, many developers embrace asp.net to develop products across multiple platforms. For example, Organizations like Novell and Zen desk build their products on ASP.net framework by adopting Mono project.*

¹ www.microsoft.com/casestudies/ServeFileResource.aspx?4000005913

² <http://southernpacificreview.com/2013/08/08/choosing-java-vs-net-for-web-development/>

³ <https://gigaom.com/2014/11/12/a-milestone-moment-for-microsoft-net-is-now-an-open-source-project/>



⁴.NET has been the development platform for Microsoft Windows environments (both for the desktop and the web) over the past ten years.

ASP.net is highly flexible development environment. Developers can use multiple programming languages adhering to open common language interface (CLI) specification. ASP.Net products can be written in the following languages with cross language interoperability.

- Jscript
- Visual Basic .Net
- J#
- C#

Enterprise products built on Asp.net require windows server to be hosted. Multiple service providers worldwide offer asp.net web hosting services. There are few parameters to be considered before hosting the ASP.net based websites and web applications.

- Windows server version
- .Net framework version
- Database type

The greater flexibility and control offered by ASP.net makes it one of the leading enterprise development platforms.

Another example would be the US- based Epic systems, ISV in Healthcare develops the health care products using ASP.NET, Visual Basic and ... NET(C#) designed many activities used in EPIC EMR.

Build Amazing Software Products

Using ASP.net, build highly interactive enterprise products. Codes processed on the server delivers the resultant HTML to the client side. Due to the ASP.net framework, the product seamlessly overcomes internet bandwidth limitations. Still provides highly responsive product functionalities. The ASP.NET framework supports early binding, caching services. It is highly optimized for superior performance and superb execution.

For example, [Stack overflow](https://stackoverflow.com/), a programmer Q&A bible runs on ASP.net MVC framework. It experiences highest traffic than many other websites. All Microsoft websites and pages are also built on ASP.net framework.

⁴ <http://code.tutsplus.com/articles/why-many-developers-hate-aspnet-and-why-theyre-wrong--net-22975>



Bringing Object Oriented Programming to the Internet

No more spaghetti lines of code. Build large enterprise products with structured and clean lines of code. ASP.net distinguishes solution code from display. Add references in HTML i.e. controls. Controls tell ASP.net to add text boxes, text, buttons and labels. Then in the code manipulate these controls to render HTML pages. Do much more with controls; add actions to controls to manage solution responses. The object oriented programming concept in ASP.net facilitates easy development of well-engineered products.

⁵[Kentico](#) CMS is a web content management system (WCMS) for building web sites, on-line stores, intranets and Web 2.0 community sites. Kentico CMS utilizes ASP.NET and Microsoft SQL Server. Kentico is being used by more than 16,000 Web sites in 90 countries. Kentico is mainly used by ISVs and SMBs who want focus on their core product offerings. And outsource the website and BPM applications development to Service partner.

Web Services: A great Feature of ASP.net

One of the greatest highlights of ASP.net: Web Services. Web Services provides integration over network to share functionalities and data. It supports widely used protocols such as XML, SOAP and HTTP available in ASP.net. Web services runs on top of Asp.net framework. Customers can easily build and integrate several layers of a solution using asp.net framework. Several layers of solution can be built on multiple servers at different locations. Then make use of web services to integrate several layers of product architecture into one and run perfectly.

⁶*rackspace RackConnect product is built using C#, ASP.NET MVC, WCF, REST-based web APIs and Windows Services for the bulk of the automation. One of the advantages of utilizing the .NET Framework for RackConnect is that it is easy to multithread.*

For example, supply chain management solution built on asp.net framework can make use of web services. In this architecture, data sources will be from multiple locations. While service interfaces such as business workflows will be on another server in a different location.

In the functional aspect, the application monitors goods movement and inventory management. The application receives the real-time from various data points. Data points mean multiple warehouses. Users access data sources using a browser based console (service interfaces consisting of workflows).

⁵ <http://www.cmsmatrix.org/matrix/cms-matrix/kentico-cms-for-asp.net>

⁶ [How .net powers RackConnect and Hybrid cloud](#), Sep, 2013



Most of Payment gateway solution use ASP.net as their framework. For example [MediaChaseECF](#) ISV develops a product called *IBiz E-Payment Integrator V2 ASP.NET component*

XML in ASP.net

The ASP.net also supports XML. XML is widely used mark-up language. ASP framework allows XML for data management, storage and manipulation. XML in ASP.net comes handy for ETL/ data integration solutions. For example, a simple parser built on ASP.net component. The product is used to convert XLS to HTML and other multiple formats.

Extensive Class Library

ASP.net includes extensive class library built by Microsoft. These class libraries house a large number of common functions. The common functions can be reused while product development. This aids in shortening the product time to market.

⁷*Microsoft has created an amazingly well designed MSDN library for ASP.NET and all of the other .NET languages. It includes a full class library containing information and examples on every class, function, method, and property accessible through ASP.NET.*

Cross Language Interoperability: Versatile

Build software products in multiple languages. Code each ASP.net page in one programming language. The product still works perfectly fine. The ASP.net framework is designed in such a way that each layer of the system can use different programming languages. For example, a product can use JQuery for UI, user interactions and C# for defining business functions.

JITBit is an example of Help desk product using ASP.net. It uses the "ASP.NET MVC" web-development framework and is written in C#

⁷ <http://msdn.microsoft.com/en-us/library/ff361664%28v=vs.110%29.aspx> . <http://www.teachyourselfanything.net/asp-net.html>



Conclusion:

ASP.net offers the most flexible development framework. Products/web-based solutions running on the ASP.net framework are quicker and more responsive. It also comes with host of security features to keep the solutions running safe. Definitely ASP.net is better than most of its competitors. Many of the enterprise- level products are using ASP.net framework. For example, Payment systems, Imaging software, clinical systems etc.

⁸Fiserv uses asp.net in many of its financial products. One of the case study reveals that *“By building Corillian Business Online 4.0 on the latest Microsoft platform and taking advantage of the .NET Framework, we’re delivering a business banking platform that helps Fiserv customers both reduce their cost of ownership and increase profitability”*

IT Cube provides design, development and integration business solutions based on the .NET platform. Our team of experienced Microsoft certified .NET architects, analysts and developers delivers a wide range of comprehensive solutions in the following key areas.

- .NET Desktop and Web Application Development
- .NET Software Product Development
- Migration of Web and Desktop Applications to .NET
- Web Services Based .NET Application Development
- Mobile applications based on .NET Compact Framework

⁸ http://www.microsoft.com/casestudies/Case_Study_Detail.aspx?CaseStudyID=490000000081

