

The Microsoft .NET Framework has an established track record as a reliable, versatile software development framework. An increasing number of users have discovered that .NET provides the speed of development, security, portability, and continuity between legacy solutions and new development that they need to thrive in today's business environment.

Microsoft .NET is a software development framework that is used throughout the Microsoft Development Platform. The Microsoft Development Platform consists of: Windows clients; Web Sites and Workflows in Windows Azure; and Application and Service Hosting on Windows Server.

Microsoft .NET includes:

- Secure, Multi-Language Development Platform
- Next-Generation User Experiences
- Cutting-Edge Web Application Development
- Secure, Reliable Web Services
- Mission-Critical Business Processes
- Flexible Data Access Options

Developers building applications in Microsoft .NET typically use Microsoft Visual Studio and Microsoft Team Foundation Server (TFS). Visual Studio is the most advanced and productive integrated development environment (IDE) available. TFS is the best integrated application lifecycle management (ALM) tool available with deep integration into Visual Studio, Web Portals, and other development tools.

This paper will give an overview of how Microsoft .NET will aid enterprises in:

- Leveraging Current Investments – How Microsoft .NET supports current investments and sets the stage to support future business opportunities.
- Cost Reductions – How the use of Microsoft .NET provides several avenues to cost reduction, including increased developer productivity, preserved functionality of legacy systems, and competitive licensing.
- Business Opportunities – How Microsoft .NET can help enterprises exploit new business opportunities.

- Long Term Viability – How Microsoft .NET has established long-term open market viability using and sponsoring industry standards.

Leveraging Current Investments

Many successful companies leverage their existing assets to create new opportunities and improve business performance in a cost-effective manner. Unfortunately, many organizations don't apply the same philosophy to their technology investments. Technology is often replaced wholesale, resulting in unnecessary development and maintenance costs.

For those considering a move from technologies outside of the Microsoft platform, Microsoft .NET interoperates smoothly with other technologies. The inclusion of industry standards such as SOAP, REST, JavaScript Object Notation (JSON), and Open Data Protocol (OData) creates interoperability that allows developers to seamlessly integrate very different systems. This makes .NET an ideal framework for systems integration and mobile scenarios.

For example, for field service personnel working on tablet devices wirelessly connected to the Internet, an application can be constructed to integrate data and functionality from different back end systems (called a composite UI or "Mash Up"). This would enable business processes directly from the field.

Those considering a move from Microsoft technologies that pre-date Microsoft .NET will find that their employees can build on their existing knowledge and skills as they work to master the Microsoft .NET Framework.

Why.NET

Cost Reductions

In addition to saving cost by enhancing current investments, .NET offers cost reductions in developer productivity and competitive licensing.

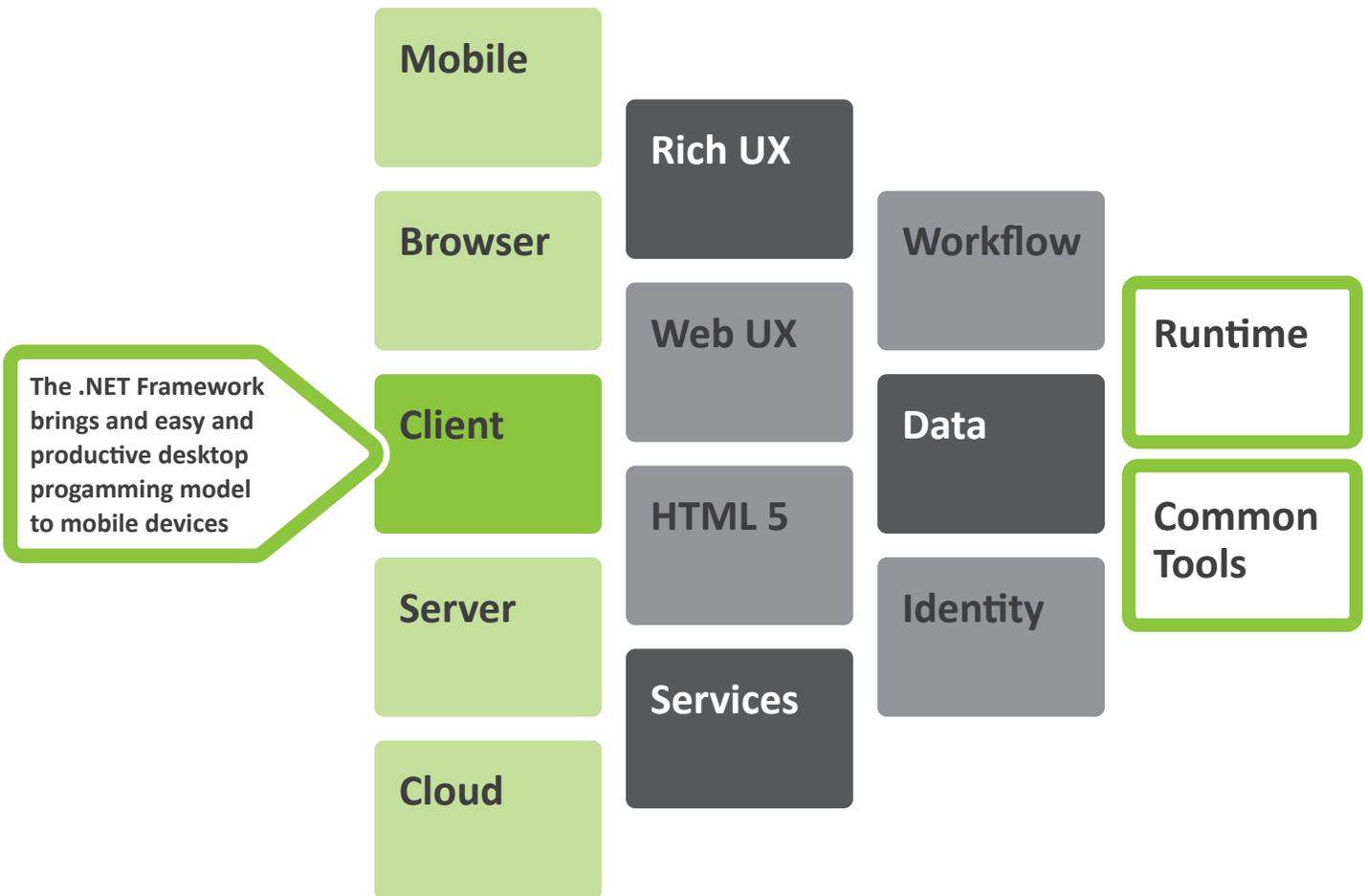
Instead of re-inventing the wheel every time certain functions are needed, developers can call on a comprehensive library of development tools already available within the Microsoft .NET framework and Visual Studio.

Additionally, .NET's popularity has driven a large partner ecosystem of commercial and open source products that add controls, libraries, integrations, tool extensions, and other facilities to supplement the considerable functionality already provided. Microsoft has embraced open source by supporting

communities such as Codeplex (www.codeplex.com), where developers can create and share .NET extensions. This rich universe of code makes it possible for teams to rapidly assemble applications from components rather than having to write the functionality from scratch.

Business Opportunities

The interoperability of Microsoft .NET allows companies to take advantage of new technical innovations without scrapping legacy systems wholesale and starting over. This not only saves the expense of development that would be spent on redesigning and rewriting existing systems, but also the time needed to evaluate and implement changes on that scale.



Why.NET

Microsoft .NET is ideal for taking advantage of innovations such as jQuery and HTML5. For those considering cloud computing, Microsoft .NET can be used to build cloud-based applications or Software as a Service (SaaS) running on Windows Azure, Amazon EC2, and other cloud platforms. Microsoft's considerable investment as a Platform as a Service (PaaS) shows commitment to providing the .NET platform with new capabilities such as message delivery and queuing, Table or Blob Storage, Azure Active Directory, Identity Services, Caching, and others that can be used by applications hosted either on-premise or in the cloud. Microsoft has made a large investment in Big Data in the form of Hadoop, Scalable SQL Server, and third party data products.

Whether an enterprise is considering embarking on an enterprise mobile initiative, expanding its product line, updating hardware, automating manual tasks, or creating better user experiences, Microsoft .NET can make the change(s) smoother, faster, and more cost-effective.



Enhanced communications between systems can be used to create end-to-end solutions to provide an integrated information system. Having a coherent and integrated information system opens up the opportunity to create a unified system of metrics, reporting, and business intelligence. This creates transparency within business processes, yielding informed decisions based on accurate, complete, and timely information.

Microsoft's investment in mobile within .NET is considerable. Server-side, mobile-friendly services in the REST style using JSON messages make functionality available for iOS, Android, and Windows Phone. Additionally, this opens up availability for Windows Embedded on dedicated devices, such as those for use in field or logistical center, and Windows 8 for ARM using Windows Runtime (WinRT) to support tablets. With the recent adoption of Windows mobile by hardware manufacturers, there is an increasing number of device choices. With Windows

8 and Windows Phone 8 – both of which run on the WinRT programming model – shipping in Q4 2012, there will be an explosion of Windows tablets including durable choices for use in the field.

Long Term Viability

Microsoft .NET has grown to be one of the most successful software development frameworks on the market. It has done this by both embracing and driving industry standards and innovation. Companies that invest in Microsoft .NET technology can trust that they will not be limited to short-term or isolated solutions.

Microsoft's Windows 8 release builds on the existing .NET platform and makes code written in .NET available on the new ARM chipset devices. These devices boast long battery life and low power consumption, thus extending investment made in .NET code and making the code available on new platforms as they emerge. With the Windows 8 wave, Microsoft has heavily invested in .NET adding new UI paradigms such as Metro-style, touch-enabled applications for tablet devices; faster, more scalable web sites and services; and deep support on both the web and desktop for HTML5. Windows Runtime (WinRT) is the model for Windows Phone and Tablet as well as the new core set of APIs going forward. Microsoft has made the WinRT API and facilities available to .NET developers, but also for HTML5/JavaScript development. This allows rich applications to be delivered to smartphones, tablets, laptops, and desktops.

Conclusion

Microsoft .NET can be a key component in any successful business technology strategy. The framework was designed to provide real business value at all levels of an organization by reducing costs and leveraging existing technology investments. This allows companies to identify, adapt to, and maximize new business opportunities and support long-term business needs.

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