



Municipal Research & Services Center of Washington

Introduction to Microsoft .NET

Concepts and potential uses
for local government service
integration.



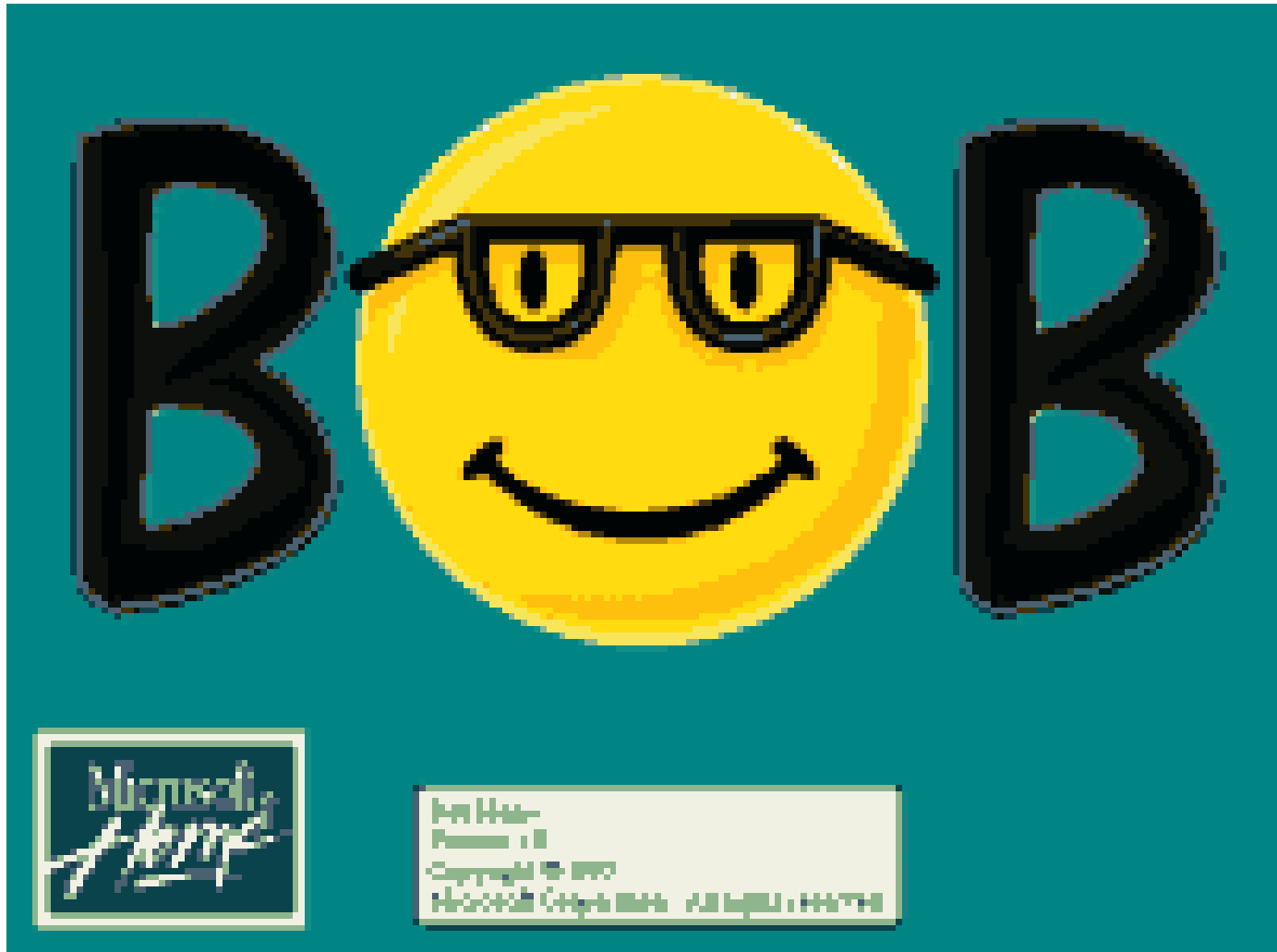
What is .NET?

Microsoft says:

“1^o of Separation...”

“That’s business with .NET”

Let's hope it's not related.



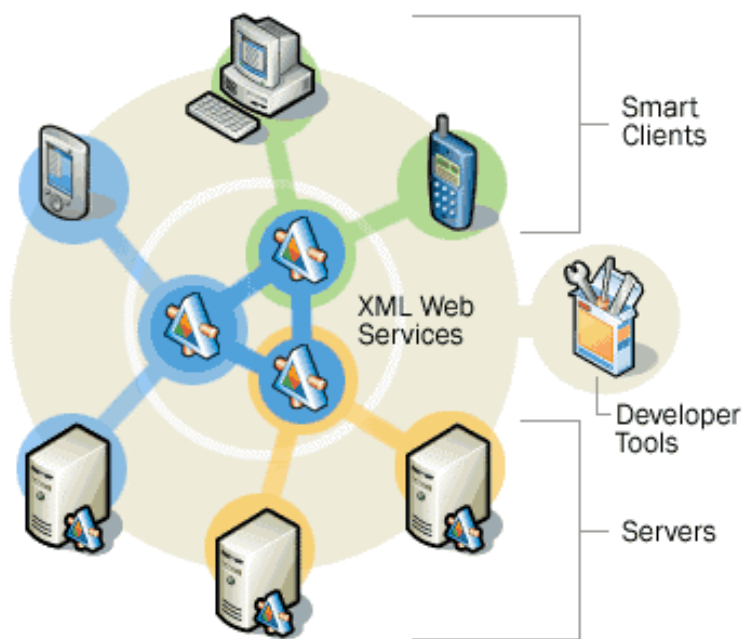



What is .NET?

- Why is it so confusing?
 - It's an evolving strategy
 - It includes the way Microsoft plans to distribute it's own software along with providing the tools necessary to develop .NET applications.
 - Software that supports .NET is being rolled out over time.

What is .NET?

- Microsoft's integration of XML, Web Services, and Microsoft software over the Internet.



 **XML Web services** are small, reusable applications written in XML, a universal language for data exchange. They allow data to be communicated across the Internet (or internal intranet) between otherwise unconnected sources that are enabled to host or act on them, for example:

- Client-to-client: "Smart" clients or devices can host and apply XML Web services that allow data to be shared anywhere, any time.
- Client-to-server: XML Web services can share data from a server application to a desktop or mobile computing device via the Internet.
- Server-to-server: XML Web services provide a common interface between existing applications within an environment of independent servers.
- Service-to-service: XML Web services can work together in sequence to create a more complex data operation.

XML – It's just data.

- XML snippet:

```
<JOBCATEGORY>  
  <JOB>  
    <CITY_COUNTY>Anacortes</CITY_COUNTY>  
    <TITLE>Clerk</TITLE>  
    <DESCRIPTION>Perform division's...<DESCRIPTION>  
    <DATEPOSTED>9/15/02</DATEPOSTED>  
  </JOB>  
</JOBCATEGORY>
```

- <http://www.w3schools.com> – XML Tutorial



Web Services

- Web applications without a user interface.
- Independent of operating system or programming language. – Meaning you can create and use Web services in many different environments.
- Both client and server must support industry standard protocols HTTP, *SOAP, and XML.



Microsoft.NET

- - 4 Components make up Microsoft.NET
 - .NET Framework
 - Developer Tools
 - Servers
 - Client software



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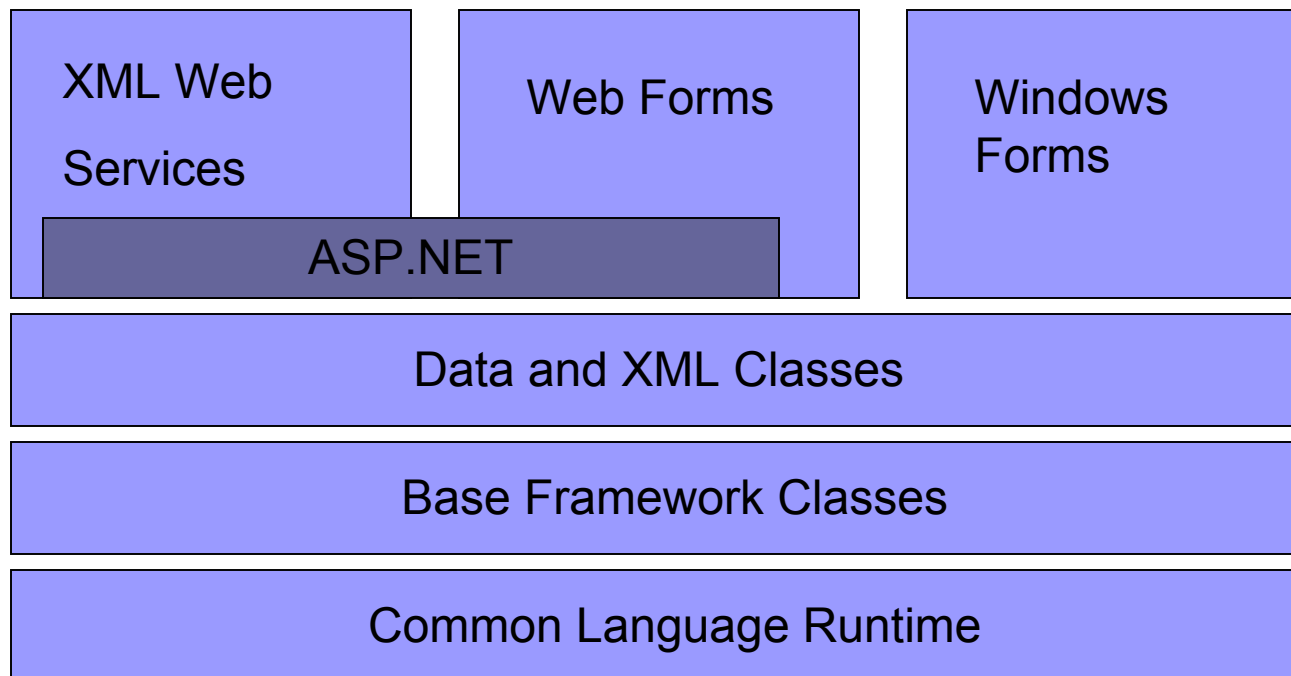


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.NET Framework

- Programming model for building, deploying, and running Web-based applications, smart client applications, and XML Web services.





Potential Uses for Local Government

- If you currently develop an ASP Web site, ASP.NET has a number of advantages over ASP.
 - Significant performance boost.
 - Increased stability.
 - It's more event-driven, giving you greater control.
 - Rich set of server-side controls.
 - Configuration and deployment are greatly simplified.
- For now, it's Free!
- ASP and ASP.NET can run side by side.



Windows but not ASP?

- You could still get some benefit by using ASP.NET for certain applications.
 - XML integration
 - Rich server controls
 - Session state
 - Application security



For Everyone

- XML and Web Services will provide an avenue for local governments to share data and applications.