

# The .NET Framework

Michael Hahsler

11.9.2002

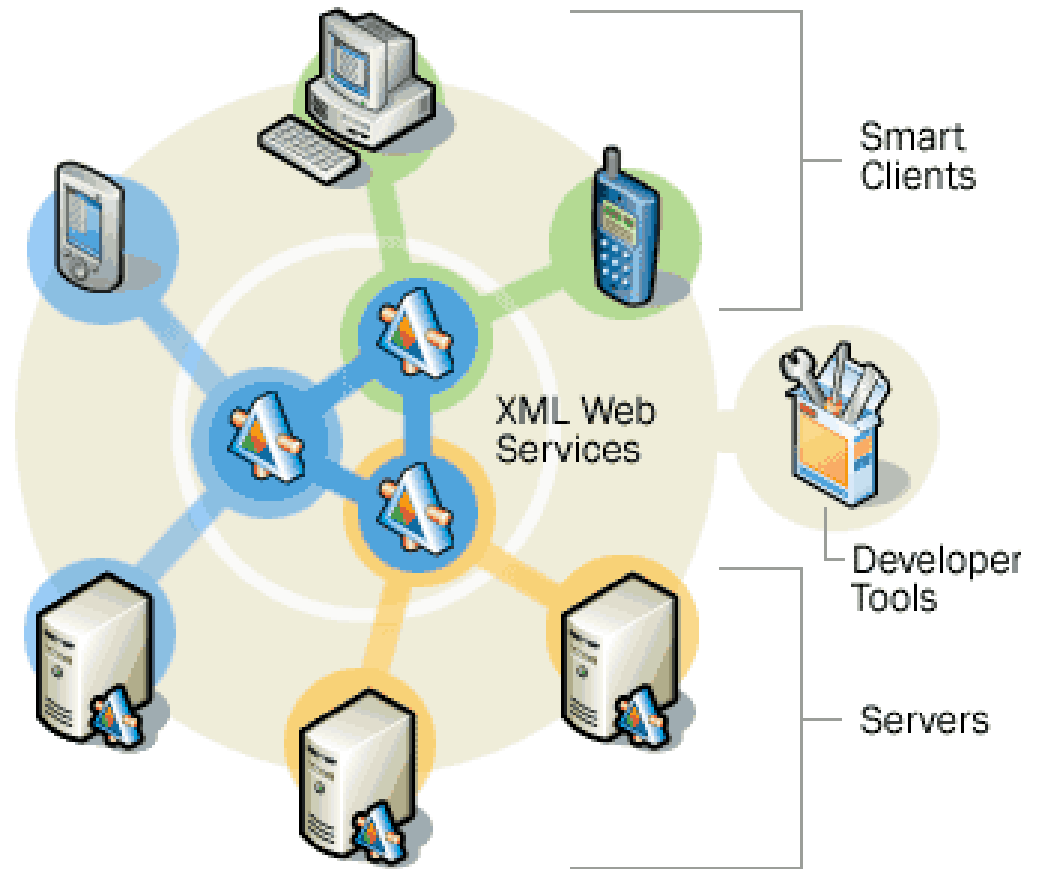
# Contents

- Basic Elements
- Tools
- How .NET Works
- Differences between ASP and ASP.NET

*Information from <http://www.microsoft.com/net/>*

# Defining the Basic Elements of .NET

- connecting your information, people, systems, and devices
- software integration through the use of XML Web services



# Smart Clients

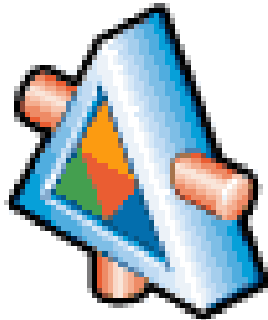
Smart Clients



- "Smart" client application software and operating systems enable PCs and other smart computing devices to act on XML Web services, allowing anywhere, anytime access to information.
- Browser, Cell phone,...

# XML Web services

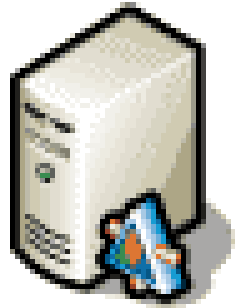
XML Web  
Services



- XML Web services or used directly with smart client applications
  - authentication
  - calendaring
  - location intelligence, ...

# Servers

Servers



- .NET Enterprise Servers-for deploying, managing, and orchestrating XML Web services
- IIS or the **personal Web-Server** shipped with MS Windows

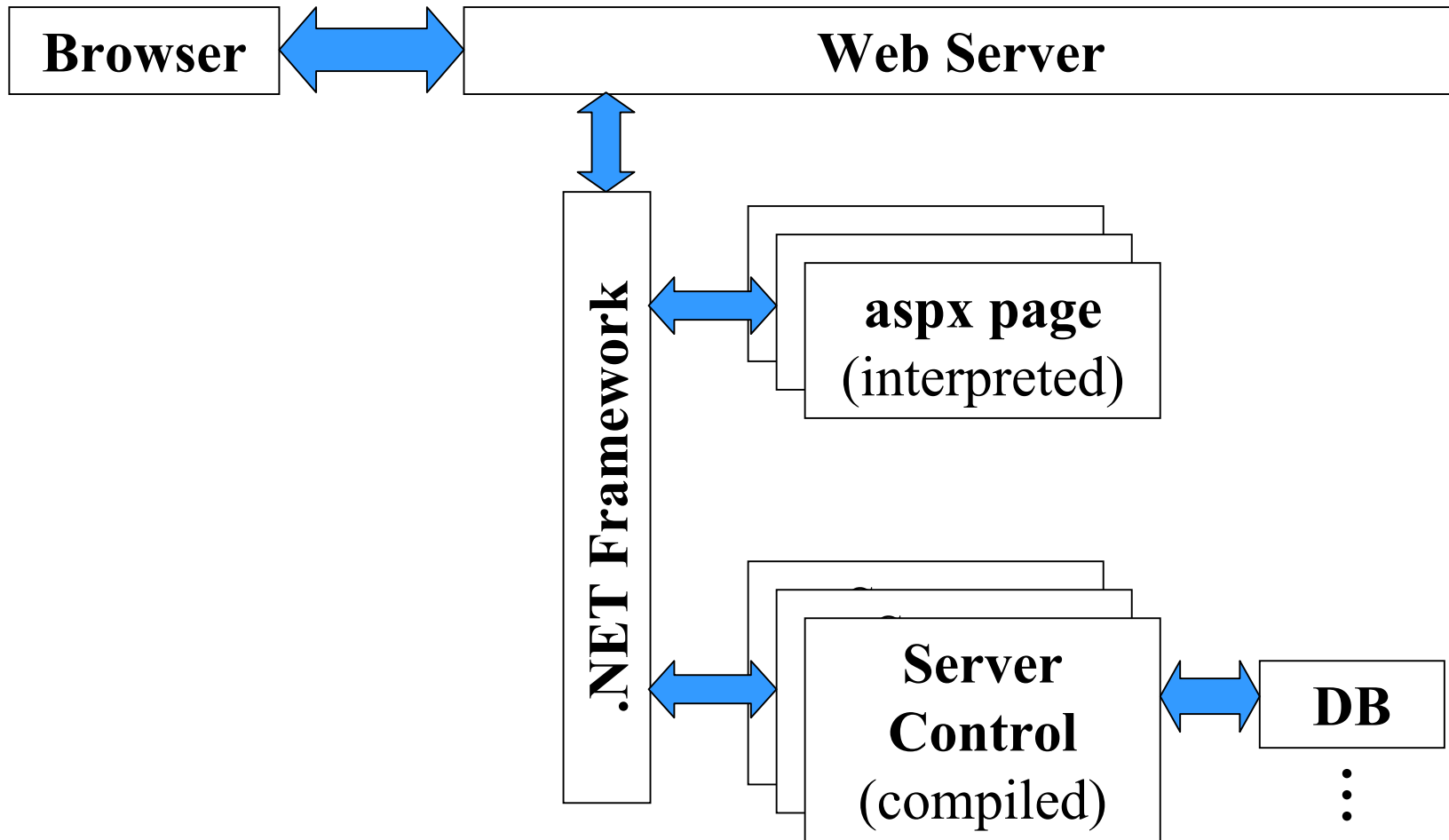
# Developer Tools

Developer tools



- Microsoft Visual Studio®  
.NET
- **Microsoft .NET Framework**
- **ASP.NET Web Matrix**
  
- Languages
  - **Visual Basic Script**
  - C# (C Sharp)
  - JScript.NET

# How ASP.NET works





# Differences between ASP and .NET

- ASP.NET is more event-driven (server side)
- ASP.NET separates code from HTML
- ASP.NET code is compiled
- Configuration and deployment is simplified

# Differences cont. - Scripting

**ASP example:** HelloWorld1.asp

```
<html><body>  
<h1>Hello World</h1>  
Time and date is <%=Now%>.  
</body></html>
```

**ASP.NET example:** HelloWorld2.aspx

```
<%@ Page Language="VB" %>  
<html><body>  
<h1>Hello World</h1>  
Time and date is <%=DateTime.Now()%>.  
</body></html>
```

**More:** <http://www.asp.net/Tutorials/quickstart.aspx>

# Differences cont. - Server Controls

Compiled server-side programs (components)

**Example: Form (intro4.aspx)**

```
<form action="intro4.aspx" method="post"
  runat=server>
  <h3> Name: <asp:textbox id="Name" runat="server"/>
  Category: <asp:dropdownlist id="Category"
    runat=server>
    <asp:listitem >psychology</asp:listitem>
    <asp:listitem >business</asp:listitem>
    <asp:listitem >popular_comp</asp:listitem>
  </asp:dropdownlist> </h3>
  <asp:button text="Lookup" runat="server"/>
</form>
```

## Differences cont. - Application/Session

- The `global.asax` File contains event handlers for application start/end, session start/end

```
<script language="VB" runat="server">
```

```
Sub Application_Start(Sender As Object, E As  
    EventArgs)
```

```
' Application startup code goes here
```

```
End Sub
```

```
Sub Session_Start(Sender As Object, E As EventArgs)
```

```
    Response.Write("Session is Starting...<br>")
```

```
    Session.Timeout = 1
```

```
End Sub
```

```
</script>
```

# Differences cont. - Configuration

- Base configuration settings for machine.

`C:\WinNT\Microsoft.NET\Framework\v.1.00\config\machine.config`

- Overridden by the configuration settings for the site (or the root application).

`C:\inetpub\wwwroot\web.config`

- Overridden by application configuration settings.

`D:\MyApplication\web.config`