



vbug

.NET Developer Conference 2007

17th and 18th October 2007
Microsoft Campus, Reading, UK



Internet Information Services (IIS) 7.0 for ASP.Net Developers
Andrew Westgarth

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About Me

- ASP.Net Code Monkey
- VBUG Chairman and North East Regional Coordinator
- Live In Sunderland
- Huge Sunderland A.F.C Supporter
- Very Interested in Wartime exploits of 617 Squadron – The Dam Busters



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Agenda

- Overview and Availability in Vista SKUs
- Architecture
- Administration
- Configuration
- Componentization
- Extensibility Model
- Troubleshooting and Diagnostics
- Unified Platform for Web Services and WCF
- Conclusions
- Questions
- Resources



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Overview

- Most significant release of IIS since IIS 1.0
- Available on Windows Vista and Windows Server 2008
- Go Live License on Windows Server 2008 Beta 3
- First time development and server platform versions of IIS aligned
- ASP.Net Integrated Pipeline
 - New extensibility model
 - Expanded Productivity Support

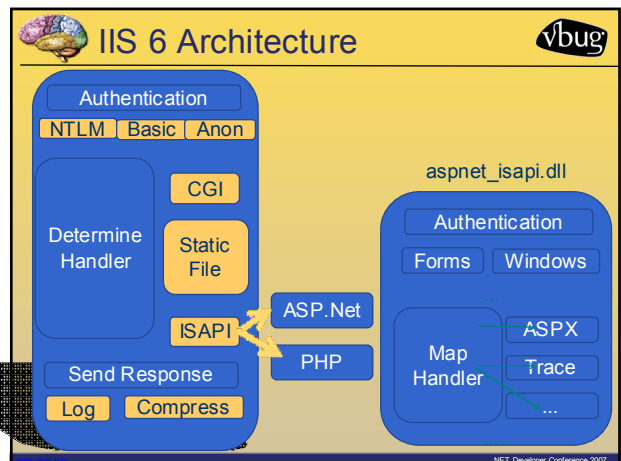
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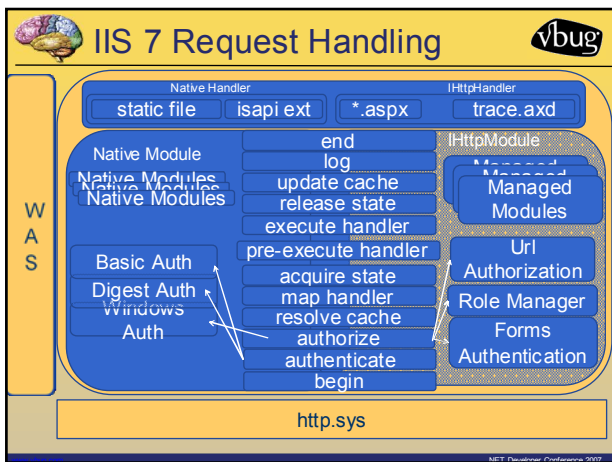
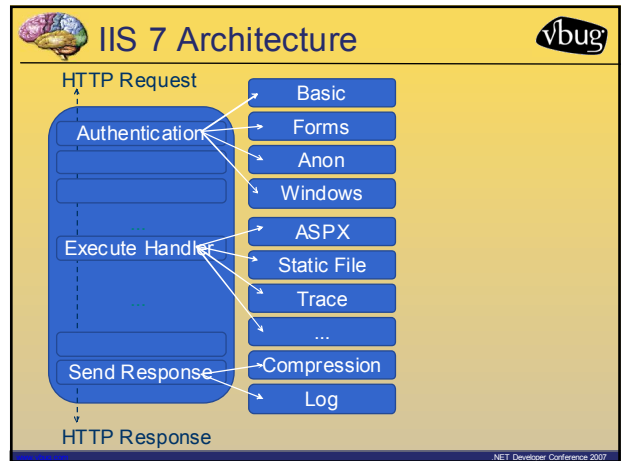
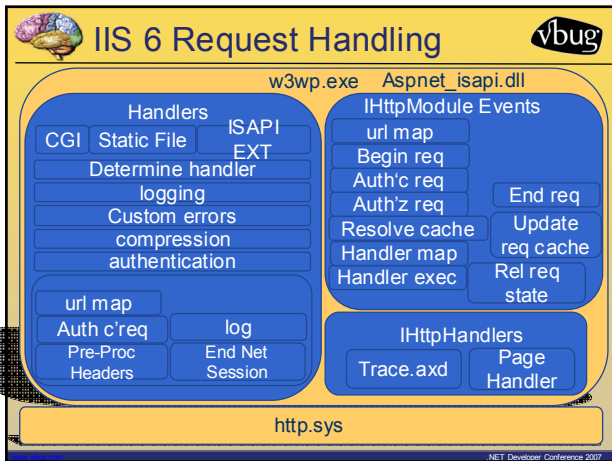



Overview in Vista SKUs

- Not Available in Vista Home Basic
- Parts Available in Vista Home Premium
 - No FTP Server, Advanced Web Authentication and Authorization, and Remote Administration
 - Simultaneous Request Limit = 3
- All elements of IIS7 found in Windows Server 2008 are available in the Vista Pro SKUs (Business, Enterprise and Ultimate) with the exception of Remote Administration

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- ### Administration
- New Administration UI
 - New Command Line Utility appcmd.exe
 - New Managed DLL – Microsoft.Web.Administration
 - Can be Delegated
 - Server can be managed Remotely

- ### Delegated Administration
- Server Administration can be delegated via configuration
 - Allows Administrators to enable others to control aspects of configuration
 - Remote Administration of IIS in Windows Server 2008

- ### Demonstration
- Administration UI and AppCmd
 - Review of Microsoft.Web.Administration




Componentization


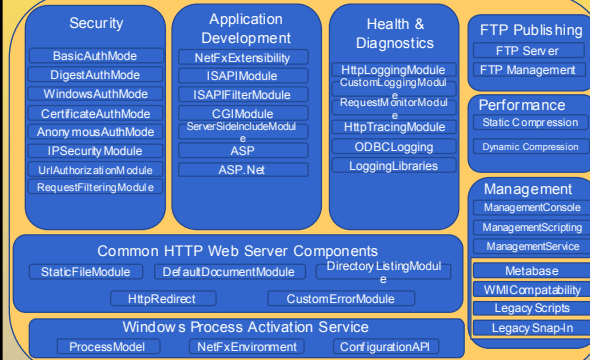


- IIS7 Now Fully Modular
- Can have very small server footprint
- Customise to only install/enable features you want to have running
- Therefore only patch what you need/use


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Components of IIS 7

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Configuration




- No more Metabase!!!!
- Compatibility – old metabase pushed to new config – same property names
- Central File – ApplicationHost.config
 - Strongly Typed Schema
 - Use same methodology as ASP.Net .config files
- Distributed Configuration

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Demonstration




- Let's take a look at the configuration system

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Extensibility Model




- IIS6 – ISAPI Filter and Extensions
- IIS7 – Brand New Win32 Native Interface
 - All IIS Modules written using this interface
 - IIS Team uses this API just like you WILL!
- Full ASP.Net 2.0 Support
 - IHttpModule available supported today!
 - ASP.Net 2.0 Handlers run same as today
- IIS Manager (UI)
 - Extend using .Net 2.0
- Diagnostics
 - Add own events directly into pipeline (System.Diagnostics)

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ASP.Net HttpHandlers and HttpModules



- HttpHandler
 - Similar to ISAPI extensions
 - Can be called via url
 - Act as target for incoming requests
- HttpModules
 - Plug into the ASP.Net request processing pipeline
 - Registered for certain events
 - As the event occurs the ASP.Net invokes the module so it can handle the request


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- Build Image Copyright Handler
- Build Module and Integrate with IIS7 Admin

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Troubleshooting & Diagnostics




- Real Time State Information Available
 - Current Processes Running
 - Application Pools Process ID
 - Currently executing requests
 - AppDomains loaded
- Real-time starting and stopping of sites
- Failed Request Tracing
- Extensive Custom Errors

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Failed Request Tracing




- Traces all requests through Pipeline
- Automatically Enabled on IIS7
- Easily identify failing, stuck requests
- Identifies time take in each module, helping analyzing long running requests

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Custom Errors



- Much more detailed
 - Language specific (Accept-Encoding)
 - Time
 - URL
 - Current Module
 - Response Status, Sub-Status
 - More Information – Detailed steps to fix problem where available


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- Custom Error Pages
- Failed Request Tracing

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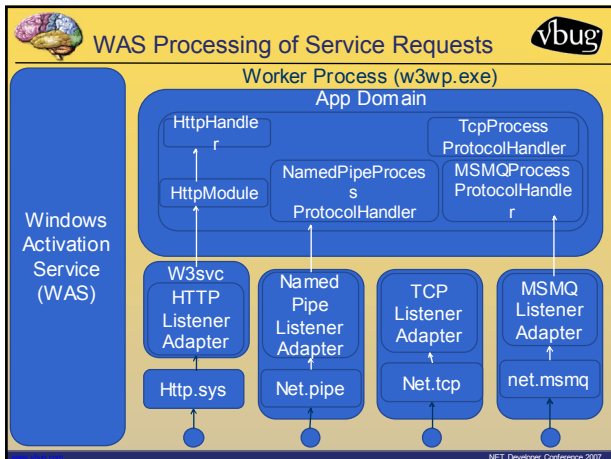


Unified Platform for Web Services and WCF



- Host WCF Services using Windows Activation Service (WAS)
- Supports Non-HTTP Protocols such as
 - Named Pipes
 - TCP
 - MSMQ
- Provides features for idle-time management, health monitoring, process recycling

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- ## Conclusions
- Major Release – Most Significant since 1.0
 - Fully Customisable – Managed and Native
 - New Pipeline
 - ASP.Net Fully integrated
 - First time desktop and server versions aligned
 - Go and have a Look
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- ## Questions
- Now
 - Ask The Experts Area
 - Via my blog – <http://www.andrewwestgarth.co.uk/Blog>
 - mail@hawaythelads.co.uk
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www.IIS.net

the new iis community portal

- forums
- blogs
- articles
- video how to's
- learning labs

visit www.iis.net now

- Windows Server 2008 Beta 3 – <http://www.microsoft.com/windowsserver2008/default.mspx>
- IIS Resources – <http://www.iis-resources.com>
- Help with F5 debugging on Vista – <http://mvalo.com/blogs/serverside/archive/2006/12/28/Fix-problems-with-Visual-Studio-F5-debugging-of-ASP-Net-applications-on-IIS7-Vista.aspx>
- MSDN Magazine Article – <http://msdn.microsoft.com/msdnmag/issues/07/03/iis7/default.aspx>

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