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ASPNET5 (vNext)

What it means to you and what it means to Microsoft

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What about building web solutions today?

ASP.NET

- **Beating heart of ASP.NET devised 10+ yrs ago**
  - To keep people off HTML and JavaScript

- **More and more features added to underlying .NET Framework over time**
  - Making memory footprint larger and larger

- **A more lightweight web stack composable by architects is critical to have** for Microsoft

What's ASPNET5?

Yet another bunch of new minor features …

Altogether enabling to build more scalable, more efficient apps, quicker to code …

It also works on Mac computers and, awesome, it also runs on Linux …

New foundation for web development taking place through the Microsoft stack.

It's surely more important for the future of Microsoft than for the future of **ISVs**. However, you won't be able to ignore **ASP.NET 5** for too long. If it's important for **Microsoft**, and you're a Microsoft shop, then it will be important for you too at some point.

Ad hoc
use cases

Device-
friendly
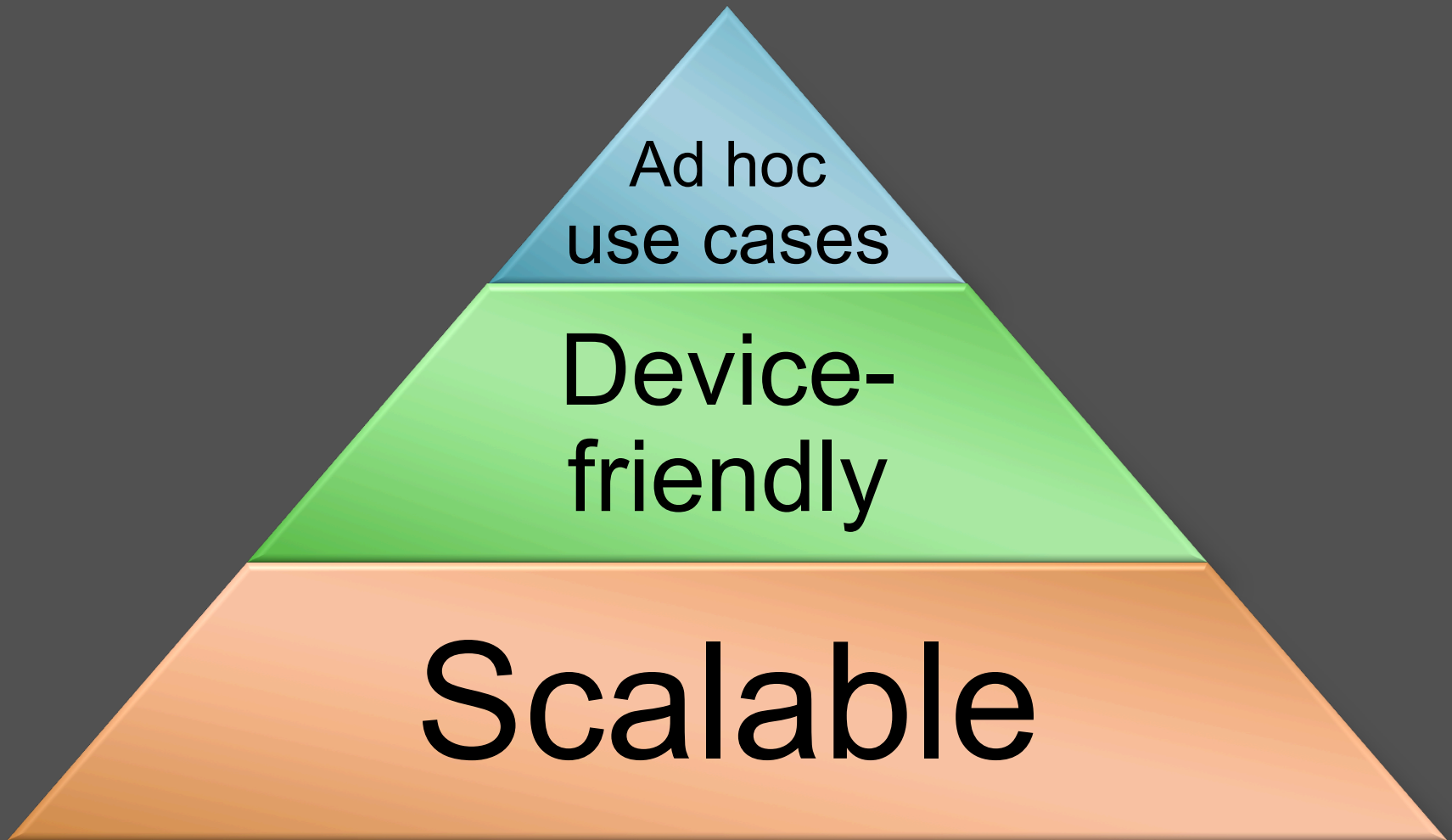
Scalable

Features that business requires in web sites

Scalability is at the foundation of modern web

Tip #1:
You Don't Have Scale Problems
Your Code Just Sucks

Most of the time, it is as simple as this.

ASP.NET 5 doesn't specifically address any of the UX specific issues of web apps.

It's all about infrastructure

Current ASP.NET

ASP.NET 5

ASP.NET 5 was critical for Microsoft to invest on.

It may not be as much critical for you and your company.

You may still ignore ASP.NET 5 and be happy.

ASP.NET 5 is just perfect. Don't waste time with back compatibility.

3 Commonsense Rules

- ASP.NET 5 was critical for Microsoft to push out and **invest** on.

- Because Microsoft invested so much in ASP.NET 5 it will become **critical** for you to learn more about it at some point.

- ASP.NET 5 brings a wealth of new features and addresses **(some)** sore points of today's web development.
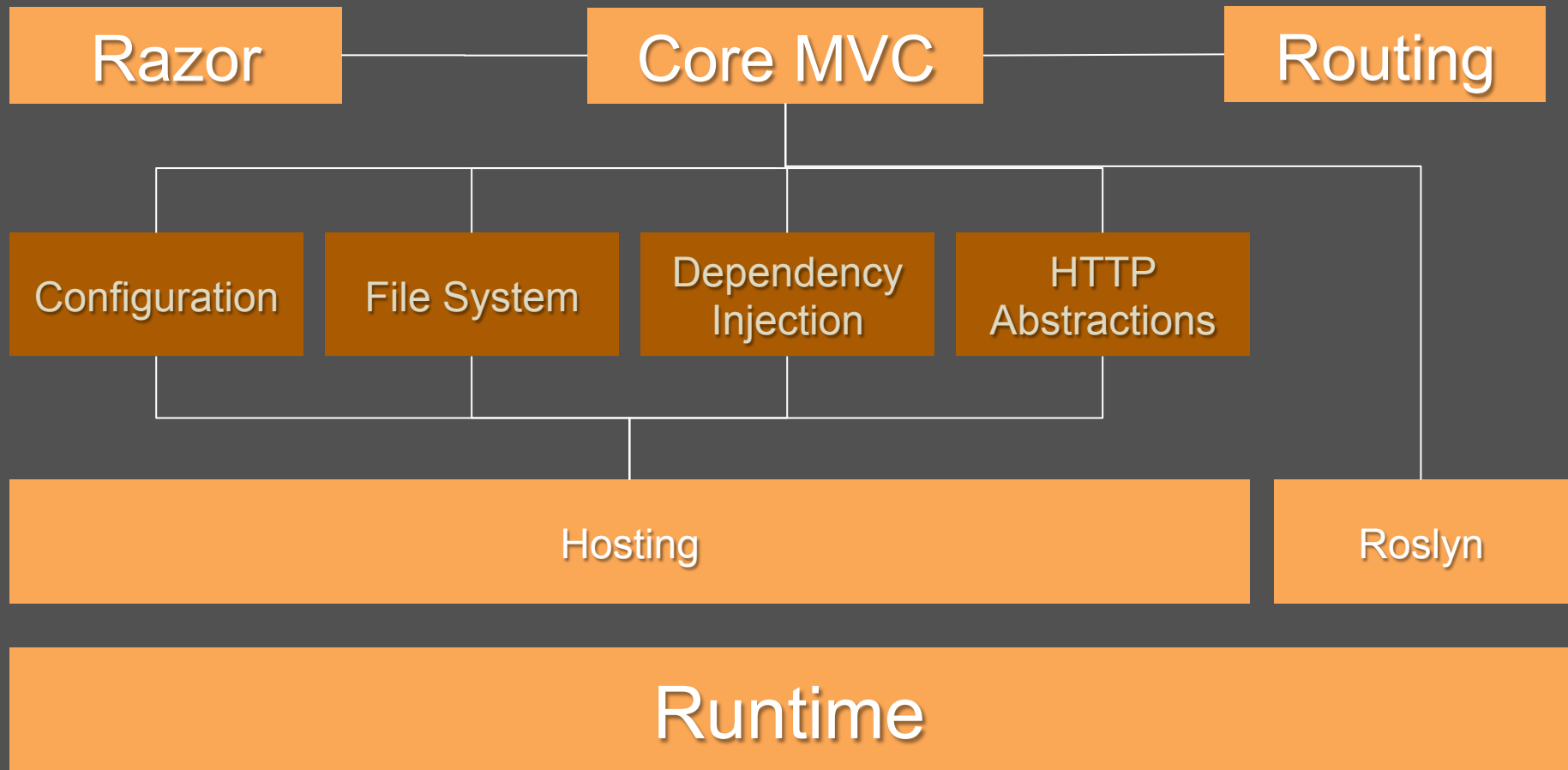
Bird's eye architecture of ASP.NET 5

FACTS

- **Only MVC paradigm to produce HTML views**
  - Controllers, model binders, routes, view engine and Razor views
  - HTTP injections (session, cache, request, response)
  - New configuration system

- **File system abstracted**
  - Can run on any platform that supports .NET
  - For example, Linux (via Apache Server)
  - Mono in the future

Roslyn

- **In-memory compiler services**
  - Overtakes historical CodeDOM API
  - External executables (csc.exe) unnecessary
  - Ideal for dynamic compilation of Razor views

- **Source code deployment**
  - No need to upload binaries
  - Enable development on non-MS platforms
  - Uploading binaries still fully supported

Runtime

- **New runtime environment**
  - Discontinue dependency on system.web
  - Hosted, not integrated, in native platform executables
- **Loads up CLR and referenced packages**
  - Statically referenced packages
  - Can use ad hoc loaders (e.g. Nuget, Roslyn loaders)
  - One-tenth of the today's footprint (3 vs 30 KB)

CLRs

- **Classic CLR**
  - Full .NET FX 4.6

- **CoreCLR on Windows**
  - .NET Core 5: shrink-wrapped .NET FX, about one-tenth
  - Libraries missing or refactored to cut dependencies

- **Cross-platform CoreCLR**
  - .NET Core 5 being rewritten for Mac and Linux
  - Will replace Mono in the long run

ASP.NET 5

- **First piece of code to fully support CoreCLR**
  - Formerly, cloud-optimized version of ASP.NET vNext

- **A few breaking changes**
  - 100% Nuget and open-sourced
  - Multi-platform
  - Minor code changes (MVC6, SignalR, Web API)

- **Scalability scenarios**
  - Single-tier, replicated through Azure web roles

Should I stay or should I go?

Plain web forms
- Can only be rewritten from scratch
- Go straight with ASP.NET 5 and CoreCLR

Web forms with plenty of Silverlight
- Stay; but verify

SPA
- Shouldn't need ASP.NET5 except for small pieces
- Feel your backend is slow? Go.

Server-side MVC
- Up to you
- Feel your site is slow? Go.

Web forms being ported to MVC
- It depends.

ASP.NET 5

Can't be ignored for too long

New web foundation

Doesn't address all key aspects of web today

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